PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN THE

LOWER PROVINCES OF BENGAL

FOR THE YEAR

1893-94.

BY

A. E. WILD,

Conservator of Forests, Bengal.

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FROM A. E. WILD, ESQ.,

Conservator of Forests, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,

REVENUE DEPARTMENT (FORESTS).

Dated Darjeeling, the 12th October 1894.

SIR,

I HAVE the honour to submit the Annual Administration Report of the Bengal Forest Department for the year 1893-94.

2. The report is, I regret to say, late, but only eight days behind that submitted by my predecessor, Mr. Dansey, last year; and when it is considered that that officer had an intimate knowledge of the circle while I am comparatively new to it—I have had unusual trouble in incorporating information hitherto omitted with an office establishment admittedly incapable of coping with the regular routine work—I trust that this delay may be excused.

3. My endeavours have been to produce a report as complete and exhaustive as the time and the information at my disposal would admit of, and one which could also serve as a sample for Divisional Officers, and thus lessen the numerous references that have had to be made. If I have succeeded in this, the extra labour thus imposed upon me will not have been in vain, while I venture to hope that the object in view may be accepted as sufficient excuse for my transgression in the matter of length.

4, Forms Nos. 61 to 65 for the financial year 1893-94 have been annexed to the report for purposes of reference.

I have the honour to be,

Sir,

Your most obedient servant,

A. E. WILD,

Conservator of Forests, Bengal.

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PROGRESS REPORT

OF

FOREST ADMINISTRATION IN BENGAL.

For the year 1893-94.

INTRODUCTION.

THIS is the first report issued for the period embraced by the new forest year, viz., the 1st July to the 30th June, last year's report having included the period from the 1st April 1892 to the 30th June 1893, *i.e.*, a term of 15 months. This fact has helped to increase the labour of compilation, as it has been necessary in many instances either to reduce the figures of the past 15 months to an average of 12 months, or to prepare actuals for the latter in order to admit of comparisons between equal periods.

An unsatisfactory feature of the report is that it has had to deal with so many references pertaining to figures that, owing to their unreliability, have had to be excluded.

Another noticeable point is the little regard Divisional Officers seem to have given in their reports to the protected and unclassed forests, which were, in accordance, it must be allowed, with previous reports, entirely omitted in many returns, thus causing unusual labour and frequent references before the information required to make the returns complete could be obtained.

The results of the year's administration are considered satisfactory; both the gross revenue and the net surplus compare very favourably with previous years.

CHAPTER I.—EXTENSION AND CONSTITUTION OF STATE FORESTS.

1.—ALTERATION OF AREA.

Changes during the year.

The following statement shows the changes that have taken place in the areas on the books of the Forest Department during 1893-94, resulting in a net addition of 74,159 acres or 116 square miles:—

	At commencement of the year.	Added.	Excluded.	At close of the year.	Percentage—	
					Of total forest area.	Of the area of the provinces.
1	2	3	4	5	6	7
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.		
Reserves	5,703	460	332	5,831	45	3·7
Protected	3,071	...	12	3,059	24	1·9
Unclassed	4,034	1	1	4,034	31	2·6
Total ...	12,808	461	345	12,924	100	8·2

The total forest area under the Department, excluding a large area of protected forests in the Chota Nagpur Civil Division, of which the area is at present unknown, is therefore 8·2 per cent. of the area of the provinces, together with the Sundarbans.

(*a*) *Reserved forests.*

Changes in reserves.

2. The chief change of the year was the final reservation of the Ramghar-Sitakund forests in Chittagong, adding an area of 133 square miles to the reserves, reduced, however, by recomputation to a net increase of 81,895 acres or 128 square miles.

In the Darjeeling Division a redistribution of areas comprised in the Senchal and Tukdah ranges caused a nominal increase and corresponding decrease of 5,955 acres.

The Tista Division lost 1,501 acres due to rectification of areas.

The receipt of the 4-inch maps of the Jalpaiguri and Buxa forests, prepared by the Survey of India Department, enabled a more accurate calculation of areas to be made in the former, and caused a reduction of 1,478 acres in that division.

In the Buxa Division the Divisional Officer makes no mention of any changes on this account.

In Singhbhum, as in Darjeeling, there was a nominal addition and reduction of 201,110 acres consequent on the division of the Saranda range into the Samta and Koina ranges.

In the Angul Division notification No. 2351For., dated 11th June 1893, which declared that the whole of the reserved forests of this division should cease to be reserved forests and re-notified them with a contracted system of boundaries, was cancelled by notification No. 1597For., dated the 20th March 1894, which directed that certain defined areas should cease to be reserved forests, and reproduced the original notifications of the 6th December 1883 and the 18th April 1885, with such amendments in the description of boundaries as the disforesting necessitated. The result of this notification being, however, incorporated in last year's report, as noted in paragraph 5 thereof, no change is in consequence needed in the returns of the year under report.

The Chittagong Division is the only division in which any real alterations took place. In this division the completion of settlement operations in the Ramghar-Sitakund forests, alluded to in paragraph 8 of last report, caused a substantial and satisfactory addition of 84,874 acres, which became a reserved forest from the 15th January 1894, as directed in Bengal Government notification No. 4960For., dated 1st December 1893.

(*b*) *Protected forests.*

Changes in the protected forests.

3. The only change in the area of the protected forests was the transfer to the Civil Department, for purposes of cultivation, of 8,099 acres of the Sundarbans forests.

Area of certain protected forests.

4. It is to be regretted that enquiries have not until now been made to ascertain the extent of the forest property included in the protected forests of the Lohardaga, Palamau, Hazaribagh and Manbhum districts of the Chota Nagpur Division declared in September 1892, and when considering the total area of the protected forests of the circle, it should be borne in mind that these forests have yet to be entered in Form No. 46.

Rules for Chota Nagpur protected forests.

5. It should also here be noted that the rules of management for these forests, referred to in paragraph 19 of the previous year's report, are still under consideration.

Angul protected forests.

6. Orders were issued in Bengal Government No. 1399For., dated 10th March 1894, to the address of the Commissioner, Orissa Division, approving the suggestions made in paragraph 15 of the Inspector-General of Forests' note on the forest reserves and general forest policy of the Angul district, to constitute the large forest areas in that district, which are not already included in reserved forests, 'protected forest' under chapter IV of the Act, to be managed by the Revenue Officers, and calling for a draft notification under section 28 and a set of rules under section 31, and the matter is now under the consideration of the Commissioner.

Sonthal Parganas.

7. Unfortunately, owing to the paucity of officers, no advance has been possible in regard to the proposal to place the forests of the Sonthal Parganas under the protection of chapter IV of the Act, and the notification and rules referred to in paragraph 19 of the previous year's report appear still to be under consideration. Promises have, however, been made to detach an officer to take charge of the proposed new division, which is to include these forests, and it is hoped this may be accomplished about November next.

(c) *Unclassed forests.*

Changes in the unclassed forests.

8. The area of the unclassed forests remained practically unchanged, there being only a small addition of 363 acres in the Kurseong Division acquired at a cost of some Rs. 5,843 by the Public Works Department, under the Land Acquisition Act, for the prevention of landslips at the well-known Paglajhora on the Darjeeling-Himalayan Railway, and made over to the Forest Department for conservation.

Proposals were, however, made to purchase the area mentioned in paragraph 151 of the Darjeeling Working Plan as the Clover Bank Location, in extent about 10 acres, and the transaction has been completed since the close of the year.

2.—Forest settlements.

Areas already settled at commencement of the year.

9. A careful consideration of the figures of column 3 of Form No. 47 for last year has resulted in a considerable decrease in the area therein shown as finally settled at the commencement of the year. This was 5,498 square miles, whereas it seems clearly proper that no more than 2,827 square miles were, at that time, finally settled—that is, settled under the provisions of Chapter II of Act VII of 1878, and there seems no question that such treatment is absolutely necessary before there can be any finality in regard to forest reservations, and before any area can attain that thoroughly safe legal position obtained by the employment of Chapter II of the Forest Act.

Of the difference, which aggregates 2,671 square miles, 395 square miles consist of errors, while 2,276 square miles, it has now been definitely decided, do not require the tedious procedure of the Forest Act.

The former occurs in the Jalpaiguri and Buxa Divisions, where it must have been known that settlement operations were in progress, while the latter comprises the reserves of the Palamau and Sundarbans Divisions originally gazetted under section 34 in 1879.

As regards the Palamau Division, 184 square miles, the action of the Local Government has been approved by the Government of India in their letter No. 358F., dated 22nd March 1893. Still the areas are not settled under the existing law, and as all intention of so settling them has been abandoned, they do not now find a place in Form No. 47.

Similarly, in the Sundarbans the notification No. 1733For., dated 10th May 1892, ordering an enquiry into rights over the 2,092 square miles of reserves under section 34, was cancelled by notification No. 1096For., dated 27th February 1894, and a few boundary disputes which seem to have been the bugbear of the Forest Settlement Officer, and were probably out of his jurisdiction as such, all else being plain sailing, were ordered to be dealt with under Act V (B.C.) of 1875, the Bengal Survey Act, by notification No. 1097For., of the same date, on the assumption that as these forests were reserved in 1879, there can be little question of outstanding rights in them. The forests have, as in the case of the Palamau reserves, now been eliminated from Form No. 47.

Areas finally settled during the year.

10. The areas finally settled during the year amounted to 477 square miles, and comprise—

(*a*) The Ramghar-Sitakund Forest, 133 square miles, in the Chittagong Division, also notified as remarked in paragraph 2.

(*b*) All the unsettled reserves of the Jalpaiguri Division and part of those of the Buxa Division, together 343 square miles, originally gazetted under section 34 in 1879, and notified for settlement in August 1890.

(*c*) The deserted village site of Tholokabad in the Singhbhum Division, estimated at 520 acres or 1 square mile, notified as a reserve from the 1st October next in notification No. 2829For., dated 28th May 1894.

As a matter of fact, operations in regard to the existing reserves were completed so far back as June 1891, but for some unaccountable reason final orders were, until matters were represented in May last, being deferred till it was possible to prepare an amended description of the boundaries in the form

prescribed in Government of India, Revenue and Agricultural Department Circular No. 10For., dated 20th June 1893.

Areas undergoing settlement at the commencement of the year.

11. Of the 667 square miles undergoing settlement at the commencement of the year, 476 square miles, remarked on in the paragraph above, have now been finally settled, while the balance remaining to be settled, 191 square miles, comprises the portion of the reserves of the Darjeeling civil district included in the Darjeeling, Tista, and Kurseong Divisions gazetted under section 34 of the Act. No steps have been taken by the Divisional Officers concerned to bring the settlement to a satisfactory conclusion, nor were they in any way in touch with the work which, from enquiries lately made, it appears was practically concluded in July 1893. The notification appointing a Forest Settlement Officer appeared in February 1890, the proclamation under section 6 issued in November 1891; the claims advanced were trifling, and probably all really untenable, and there is no apparent reason why the work should not have been brought to a close more than a year ago. It is now being seen to and will be finally concluded without further delay.

The settlement of the 275 acres addition to the Tukdah forest of the Darjeeling Division, mentioned in paragraph 12 of last report (Pujampong in the form) has, it is understood, been completed; but before passing final orders in the matter, the Deputy Commissioner and Settlement Officer has suggested to Government the retention of the land under the Civil Department, at least for the lifetime of the present enjoyer, and the suggestion is now awaiting a report from the Forest Department.

The 105 acres extension of the Balasan forest of the Kurseong Division, likewise alluded to in that paragraph, appears to have hung fire, but is now being again taken up.

Areas undergoing settlement taken in hand during the year.

12. Of the 741 square miles under this category, in columns 12 and 13 of Form No. 47, one square mile—the old village site of Tholokabad in the Singhbhum Division—has been finally disposed of, and as mentioned in paragraph 10 above, will become a reserved forest on the 1st October.

The Panbari khas land, 7 square miles in extent (alluded to as 9 square miles in paragraph 12 of last report), was notified under section 4 in July 1893, and was constituted a reserved forest from the 1st July last by notification No. 2661For., dated 14th May 1894.

New proposals of the year comprise eleven forests, with an estimated area of ten of them of 733 square miles in the Chittagong Collectorate. These forests were noted on in paragraph 8 of last year's report. The preliminary notification issued in January 1894, and hopes are entertained that the reservation will soon be complete. There seems no necessity that it should take so long as has apparently been customary.

Expenditure incurred on settlements.

13. So far as is known, and as has been reported, the expenditure during the year on areas undergoing settlement has been Rs. 23 only, incurred under AVIII (*a*) in the forest accounts and on the demarcation of the Tukdah extension.

Rupees 135 were, however, spent in the Direction Division in compensation on settlement of rights during the previous year in the Khurchuta reserve.

Impending settlements.

14. Impending reservations, in addition to those already proposed and mentioned in paragraph 12, are the Paglajhora extension in the Kurseong Division, the Clover Bank Location in the Darjeeling Division, alluded to in paragraph 8 above, and the village site of Turva in the Angul Division. Since the close of the year, a preliminary notification with regard to the latter has already issued

Conversion of the Khurda protected forests into reserves.

15. The proposal alluded to in paragraph 10 of the previous year's report to convert such areas of the Khurda protected forests in the Puri Division as it might be decided to permanently maintain as either a forest, fuel and fodder or pasture reserve, has been abandoned by the Local Government; while that to again form into reserves the several petty areas only last year transferred from this category to "protected" is still under the consideration of Government.

Dalbhum Encumbered Estate.

16. The Manager of the Dalbhum Encumbered Estate, which is managed under the Chota Nagpur Encumbered Estates Act VI of 1876, having applied, under section 38 of the Indian Forest Act, to have the forests of the estate managed by the Forest Department, a preliminary notification, No. 4385For., dated 31st October 1893, under section 4, referred to in paragraph 9 of the previous year's report, has been published, and settlement operations, which it is estimated may be concluded during the next year, are in progress. As these lands are not in any way under the Forest Department, no mention is made of them in Form No. 47.

Bandgaon Pir estate.

17. Proposals were made in 1892 to manage the forests of the Bandgaon Pir estate, a part of the Porahat sequestrated estate, as "protected forests," but subsequently it was agreed that the forests were not the property of Government, and it was decided that they should be managed in an informal manner by the Department. Notwithstanding what has passed on this question, there would seem to be no valid reason why the forests should not, if advisable, be constituted reserved or protected forests, as other parts of the sequestrated estate, and it further indeed appears questionable whether the notification declaring protected forests in the Chota Nagpur Division does not even now apply to these forests.

Fuel and fodder reserves.

18. Also for reasons given in paragraph 11 of that report, no further action seems to have been possible to obtain reliable information in regard to areas available for fuel and fodder reserves in districts outside the forest charges.

In the Darjeeling Division no result has yet been communicated with regard to the proposals made last year by the Divisional Officer to the Deputy Commissioner.

In Kurseong it was reported no areas were available, while in Tista and the Sundarbans none were considered necessary.

In Jalpaiguri and Buxa proposals were submitted by Divisional Officers, but both the Commissioner and the Conservator have abandoned the idea, though in the latter division it is reported that many areas, large in the aggregate, have been set apart for grazing by the Settlement Officer.

In Singhbhum, Palamau and Chittagong no further action has apparently been taken.

Angul has been referred to in paragraph 6 above.

The Sonthal Parganas will doubtless be provided for when a special officer can be deputed there, probably in November next.

Sikkim Forests.

19. It has to be recorded that the Conservator has again failed to find leisure from his onerous duties to visit the Sikkim forests.

3.—Demarcation.

General.

20. Form No. 48 shows the state of demarcation, but omitting as it does the whole of the protected forests, except those in the Sundarbans, which were erroneously excluded for some unaccountable reason last year, and the new Ramghar-Sitakund reserve, it cannot be said to give a clear idea of the circle.

The total length of boundaries at the close of the year has increased from 3,557 miles to 3,830 miles, owing to the inclusion of the boundaries of the Sundarbans protected forests alluded to above; while last year's figures have undergone, all through, necessary corrections in accordance with more accurate calculations.

For similar reasons the length of natural boundaries not requiring artificial marks which, of course, should remain constant, has been added to, and now stands at 1,677 miles as against 1,436 last year.

The work of the year has been in excess of that performed during 1892-93; 181 miles less of boundary have been repaired, while 87 miles more of new demarcation, necessitated by the new alignment in Angul, have been carried out.

The total expenditure of the year has thus risen by Rs. 1,153, all—but Rs. 4—on new work. The average cost was for new demarcation Rs. 12 and for maintenance Rs. 4 per mile.

Endeavours will be made to make the form more complete next year, but it may be remarked that the return is a new one and appears not to admit of

the inclusion of repairs to non-consecutive marks, though the cost of such works must be shown.

Details by divisions.

21. In Tista 7 miles of line along the Sikkim and Bhutan frontiers are kept up by the civil authorities; while the 168 miles cleared cost only Rs. 693. Eight hundred and eighty-seven posts were renewed for Rs. 207.

In Kurseong, in addition to the work shown in the return, 401 new posts were erected and 178 old ones repaired; 1,235 were numbered. This work cost Rs. 129, which, however, is included in the expenditure entered in the return.

In Buxa 382 and in Palamau 222 posts were put in order, the former costing Rs. 54.

The chief work was in Angul, where 123 miles of the new alignment were artificially demarcated at a cost of Rs. 1,507, and repairs to the same length of previously existing boundaries undertaken amounting to Rs. 378. Twenty-six miles of the new alignment still require attention, though it is satisfactory to report the settlement of the dispute with the State of Daspalla.

In the Sundarbans, a length of 32 miles of protected forests boundary, all that is not naturally defined is maintained by the civil authorities. The duties of the department in this respect is therefore limited in this division. The work mentioned in paragraph 9 will be executed during the cold season.

In Chittagong existing boundaries of reserves have been attended to, but the Divisional Officer seems to have no knowledge of the boundaries of the unclassed forests, or of those of the recently reserved Ramghar-Sitakund forests.

Inspection of boundaries.

22. The inspection of boundaries is only alluded to by the Tista, Jalpaiguri and Palamau Divisional Officers.

4.—Surveys.

General.

23. Mr. Dansey acknowledged the inability of himself and his officers to thoroughly understand and prepare Form No. 49 last year, and it was therefore omitted from the report; yet no steps seem to have been taken to obtain instruction in the matter, and hence the present Conservator finds himself placed in as much difficulty as his predecessor. An attempt has, however, been made to rectify the omission, and though it has given much trouble, the result is not accurate, especially as regards the previous cost of surveys undertaken; it will, nevertheless, show Divisional Officers that the form should be submitted, and in time it will improve.

Areas surveyed.

24. At present the record shows areas surveyed in square miles:—

	Specially surveyed.	Included in district surveys.	Local officer's boundary survey.	Area remaining to be surveyed.
1	2	3	4	5
For Reserves	979	2,092	1,706	1,242
„ Protected	...	2,248	...	811
„ Unclassed	...	...	1	4,033
Total ...	979	4,340	1,707	6,086

No new work was performed by either the Survey of India or Forest Survey Branch during the year.

The special surveys represent the recent topographical survey on the 4-inch scale by the Survey of India Department, of the reserves of the Jalpaiguri and Buxa Divisions, the maps of which have now been fully received, and the survey by the Forest Survey Branch undertaken in 1885 to 1889 in the Singhbhum Division, and which, after reaching an area of some 532 square miles, had to be abandoned owing to the unsettled state of the boundary along the adjoining State of Keonjhar.

The ordinary district survey comprises the reserves and protected forests of the Sundarbans Division, in area 4,340 square miles, the map of which was compiled by Mr. Ellison under the direction of the Commissioner of the

Sundarbans in 1873. It records to some extent the interior details, but recent investigations in the annual coupes have brought to light many minor water-channels, the existence of which was previously unknown.

The survey by local officers includes the reserves of the Palamau and Chittagong Divisions, in area 1,706 square miles, and is reported to have been carried out by divisional forest officers and the Settlement Department, though doubts may be entertained of the sufficiency of the work.

Areas remaining to be surveyed.

25. No proposals are on foot with regard to undertaking the large area of 6,086 square miles as yet unsurveyed. A reference to paragraph 35 of the Annual Report for 1883-84 will show that a considerable portion of this area has been surveyed in a manner at one time or another, and is no doubt marked on the sheets of the Indian Atlas and on district maps, which serve present purposes.

Cost of surveys.

26. It is impossible to give the cost of previous work with any degree of accuracy; that for the year is Rs. 94 only, spent chiefly on works in connection with the marking out of coupes in the Jalpaiguri and Sundarbans Divisions.

Detail of divisions.

27. In the Darjeeling Division Rs. 8 were spent in surveying the Tukdah extension.

In Kurseong certain small areas in the Kooklong reserve leased out for cooly locations were mapped at no extra expense.

The new maps prepared by the Survey of India Department of the reserves of the Jalpaiguri and Buxa Divisions have all been received; these, though showing roughly the position of large savannahs, are necessarily inaccurate in the minor interior details, and will need correction before the available sál area can be calculated from them.

In Palamau the boundaries of the reserves are reported to differ considerably in some places from those originally gazetted, and perhaps, though the boundaries have been in a measure surveyed by the local officers, it would have been better had the opportunity offered by the land settlement operations now going on in the district been availed of to have a resurvey made.

In Singhbhum there seems no reason why the survey begun in 1885 by the Forest Survey Branch should not now be carried to completion, and, with reference to the remarks made in paragraph 4 of the Resolution of the Government of India on the report of last year, it might perhaps be possible even to include the protected forests in the operations.

In Angul the recently realigned boundary will be taken in hand during the coming cold weather.

In Puri the orders given by the Local Government, mentioned in paragraph 6 of its review on the report for 1892-93, to have the boundaries of the Khurda protected forests transferred from the original 32-inch scale to the 4-inch reduction, have not been carried out, and may possibly be deferred for the present.

Petty surveys connected with roads, plantations, &c., were carried out by Divisional Officers in several Divisions.

CHAPTER II.—MANAGEMENT OF STATE FORESTS.

I.—REGULATION OF MANAGEMENT.

(*a*) WORKING PLANS AND THEIR CONTROL.

Working plans in general.

28. The subject of working plans as regards the reserved forests was dealt with at length in paragraphs 39 to 46 of last year's report. The plans completed, the state of the work then in hand, and the requirements of the circle were fully discussed, and conclusions arrived at which, based on a three years' intimate knowledge of the province, ought to be a guide for the future. The picture drawn in 1892-93 was an encouraging one, but unfortunately the officers necessary to accomplish much of this sketch have been wanting and, it is to be regretted, are so still.

Form No. 50 shows the position of the province as regards working plans at the close of the year under report. The area under regulated management has not been increased, but the progress of the year has, under the circumstances, been satisfactory, and has comprised the taking in hand of a further area of 213 square miles, which, together with the area of 12 miles in hand at the beginning of the year, has practically been completed, and the plans will shortly

be forwarded to the Inspector-General of Forests for professional scrutiny. There remains, as shown in the form, an area of 8,321 square miles, on which operations have still to be commenced, of which, however, according to paragraph 39 of last report, 1,822 square miles do not require treatment for some years to come, while outlines for 946 square miles have already been approved of, and notes answering the purpose of outlines prepared by the Inspector-General of Forests himself for 361 square miles.

Details by Divisions.

29. The Darjeeling Division may now be said to be practically sufficiently furnished with working plans; for, when the plan for the 12 square miles alluded to above, and on the completion of which a special officer, Mr. Lillingston, was employed from October to June, now almost ready for professional scrutiny, receives approval, all that is presently necessary will have been accomplished. On this point, however, the present Divisional Officer, Mr. Davis, holds a different opinion and, in view of the growing demand on the accessible forests of the Singalila range, considers the early framing of a working plan for those forests advisable.

As regards the Tista Division curiously enough Mr. Dansey wrote in 1892-93 that no working plan would be required for some time for certain hill forests of that division, in area 184 square miles, yet in September 1893 ordered that the whole of the forests of the division should be comprised within the scope of a plan to be prepared by the Divisional Officer. And, in accordance, a working plan embracing the whole area has been creditably compiled by Mr. French, the Divisional Officer, in addition to his regular duties, and was submitted to the Conservator shortly after the close of the year. The plan is necessarily of a very rough character, but, such as it is, will, as soon as possible, be forwarded to the Inspector-General.

For the Kurseong Division there is no sanctioned working plan, but until operations can be commenced, the Divisional Officer has been instructed to collect data as far as possible.

For the Jalpaiguri Division forests an outline has been approved and the work will be taken in hand seriously, as soon as it is possible to give assistance to the Divisional Officer. In the meantime Mr. Haines has not lost sight of the work, and, during the year, has been able, in addition to his ordinary duties, to accomplish the following:—

(*a*) A complete enumeration of the sál trees and marking of blocks under the system of coppice with standards in the Khairanti forest.
(*b*) The marking off and a valuation survey of two coupes in the Muraghat forest.
(*c*) A complete valuation survey of section F of Lower Tondu Lataguri coupe.
(*d*) A valuation survey of a coupe set aside for the supply of fuel to the Bamondanga Tea Estate in Lower Tondu.
(*e*) The recording, for purposes of the calculation of the rate of growth, of the girths and heights of 40 sal trees.

Details of the valuation surveys and the actual outturn have been carefully recorded, and, taken together, will furnish useful statistics for the working plan. Owing to want of labour to fell the trees, the actual contents in cubic feet of an average tree of the various diameter classes could not be calculated, which, however, it is hoped to be able to add during the coming year. Thus, allowing for no additional assistance, satisfactory progress has been made in this division.

In the Singhbhum Division the preparation of a working plan for the whole of the reserved forests, in area 732 square miles, was entrusted to the Divisional Officer, Mr. Chester, to whom, in order that he might find time to devote to the work, an Assistant, Mr. Lovegrove, was given to help in the current work of the division. Unfortunately, however, before anything practicable could be accomplished, Mr. Chester, who only took charge of the division in December 1893, was ordered home sick, and the whole of the duties of the division falling upon Mr. Lovegrove and a newly appointed assistant, the work had to be abandoned.

In Angul nothing could be done to further elaborate the suggestions made by the Inspector-General of Forests in his note on the forests and forest policy in that district.

Similarly, in Puri, no advancement was possible in the direction indicated in the Inspector-General of Forests' note on the Puri forests, and it has been suggested by the Collector that the work of transferring the boundaries of the unsettled lands, alluded to in paragraph 46 of last year's report and in paragraph 6 of the Local Government's review from the 32-inch to the 4-inch map, should, as mentioned in paragraph 27 above, be deferred for the present, and it would seem that the imperfect knowledge of the boundaries of the protected forests and of the forests themselves is an effectual bar to the framing of any useful working plan.

Control of working plans in general.

30. No remarks were given under this head in the report for 1892-93. Control forms have, however, been kept up as prescribed; but as these are, in accordance with paragraph 92 of the Forest Department Code, only due with the Conservator on the 1st October, they have not yet been received for the year under report.

The working plan for the Darjeeling forests.

31. From enquiries, however, as to the accuracy of the control forms for the Darjeeling forests for 1892-93, it has been found that although the working plan is a masterly and most exhaustive production, still its very completeness seems to render its

interpretation the more difficult, and no less than three opinions, each differring from the other, have been recorded in regard to the provisions of the year of the amelioration fellings prescribed, and the matter is now under discussion with the Inspector-General of Forests.

The working plan of the Sundarban Government forests.

32. The year under report was the first year of working of the plan for the Sundarbans Government forests, and the Divisional Officer reports that the prescriptions of the plan were duly followed. Although the plan embraces an area of 4,340 square miles, it merely protects an area of 1,544 square miles, and prohibits the felling of unmarked sundri, pussur, amur and keora trees only on $\frac{9}{10}$ths of that area, allowing trees of those species of over 3 feet in girth to be cut only from one-tenth alternately year by year. Apparently it does not stipulate that *all* such latter trees in the coupe are to be felled, the limit presumably being the demand, hence the control chiefly resolves itself into protection of the areas outside the coupes and the enforcement of the prohibition to fell trees of the above species of 3 feet and under within the coupes.

Calculation of the rate of growth.

33. The trees on the four sample plots mentioned in paragraph 45 of the previous year's report have been again measured during the year, and the results are given in tabular form in Appendix A, which will henceforth be regularly kept up. Measurements of other valuable species have also been recorded, as well as measurements of 92 sál trees on about half an acre in the Puri Division.

(*b*) Annual Plans of Operations.

Annual plans of operations.

34. Annual plans of operations were drawn up for all divisions in accordance with the Forest Department Code and approved by the District Officers. Divisional Officers have, as a rule, neglected to specify under this head in how far the sanctioned provisions of these plans have been adhered to. The more important deviations have, however, been shown in their appropriate places under the different heads of works hereafter treated of.

The most backward have been the Singhbhum, Darjeeling, and Chittagong Divisions.

II.—WORKING OF THE YEAR.

(*a*) Communications and Buildings.

General.

35. The expenditure of the year on communications and buildings, as shown in complete detail in Form No. 51, compared with that of the 15 months of the year previous, was as follows:—

	Buildings.		Roads and Bridges.		Total.	
	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
New construction	8,778	21,757	10,049	6,998	18,827	27,755
Repairs	9,675	10,435	3,721	6,885	13,396	17,320
Unapportioned	168	.....	4,721	1,633	4,889	1,633
Total	18,621	32,192	18,491	14,516	37,112	46,708

The expenditure on new buildings was Rs. 12,979 in excess of that of last year, chiefly owing t the completion of the forest office at Khulna in the Sundarbans Division, on which alone a sum of Rs. 9,080 was spent during the year.

New roads, of which only 51 miles were completed, against 114 during the year previous, cost less by Rs. 4,051, while the expense of up-keep and repairs rose from Rs. 3,721 to Rs. 6,885 on a length of 487 miles against 392 miles in 1892-93. There was, however, a corresponding reduction of Rs. 3,088 in the unapportioned expenditure caused by the services of the Assistant Engineer of the Public Works Department employed in the Darjeeling Division having been replaced at the disposal of that Department.

Buildings.

36. The more extensive new buildings completed during the year costing over Rs. 1,000 were :—

Division.	Description.	Cost.		Total.
		In previous year.	In year under report.	
1	2	3	4	5
		Rs.	Rs.	Rs.
Jalpaiguri ...	Rest-house at Gorumara with out-houses.	912	792	1,704
Buxa ...	Rest-house at Alipur ...	61	1,072	1,133
Singhbhum ...	Rest-house at Goilkora ...	2,142	286	2,428
Sundarbans ...	Office at Khulna ...	920	9,249	10,169
Chittagong ...	Range house at Kassalong ...	.....	1,220	1,220

The only building under construction at the end of the year was the office building at Chaibassa in Singhbhum, on which Rs. 1,854 had been spent; the building of a forest house at Halursingha in the Angul Division having been entrusted to the Public Works Department.

The chief item of repairs was in adding corrugated iron to the roofs already existing on several of the houses in the Darjeeling and Kurseong Divisions, and on this account Rs. 967 were spent in the former and Rs. 2,162 in the latter.

Roads.

37. The total operations on roads comprised 51 miles of new roads and the repair and maintenance of 487 miles of existing roads, and were not, therefore, very extensive for a circle comprising 12,924 square miles.

Details by Divisions.

38. In consequence of the very complete detail given in Form No. 51, no special remarks for each division seem necessary; suffice it to say that as regards buildings the Sundarbans, Chittagong and Buxa Divisions have shown the most activity, while Angul and Palamau each constructed 13 miles of new roads (more than double the work of any other division), and Kurseong repaired the greatest length, viz., 87 miles; road construction in the Tista division is, however, most difficult.

In how far the work completed in the Darjeeling Division agrees with the prescriptions of the working plan has not been mentioned by the Divisional Officer, while in other divisions, notably in Singhbhum and Chittagong, it has fallen far short of what ought to have been done in accordance with the plans of operations owing to difficulty in procuring labour and a desire to keep an impending deficit as low as possible.

List of buildings.

39. The following statement shows the buildings and forest inspection houses in the circle at the close of the year; it is, however, anything but perfect, and will be improved next year:—

Division.	Rest-houses for controlling staff.	Quarters for subordinates.	Offices, stores, &c.	Total.
1	2	3	4	5
Darjeeling ...	4	15	55	74
Tista ...	6	35	20	61
Kurseong ...	6	50	3	59
Jalpaiguri ...	3	4	50	57
Buxa ...	5	3	49	57
Direction ...	...	1	5	6
Palamau ...	11	2	17	30
Singhbhum ..	2	18	47	67
Angul ...	1	5	35	41
Puri ...	4	3	26	33
Sundarbans ...	...	23	1	24
Chittagong ...	1	110	...	111
Total ...	43	269	308	620

40. Under "other works," which involved a total expenditure of Rs. 1,440, were the clearing of compounds in the Buxa Division Rs. 348, the construction of embankments Rs. 270, and the preparation of coal depôts Rs. 256, in the Sundarbans Division.

Other works.

The well at Goilkora, for which Rs. 234 had been sanctioned, was not completed, owing to the site chosen having proved unsuitable.

(*b*) Protection of Forests from injury.

(1) *General Protection and Breaches of Forest Law.*

41. The offences which necessitated appeal being made to the Courts are classified and compared with those of the previous year as follows:—

Cases take into Court.

Nature of offence.	Number.			Increase.	Decrease.
	1892-93.		1893-94.	In 1893-94.	
	15 months.	12 months (average).			
1	2	3	4	5	6
Injury to forests by fire ...	15	12	8	.....	4
Unauthorized felling, &c. ...	127	102	75	.....	27
Grazing without permission ...	20	16	15	.....	1
Other offences	13	10	28	18	.....
Total ...	175	140	126	18	32

The decrease of 49 cases is reduced to 14 on the 12 months average, and is accounted for chiefly by a better knowledge and appreciation of the rules for the protected forests by the people of the Puri district, and it is said more efficient control on the part of the protective staff. Other offences included one in the Puri Division and another in Chittagong of unlawful assembly, in both of which punishments were awarded.

Out of the 126 cases brought, convictions were obtained in 109, or 86 per cent., against 88 per cent. last year. The prosecutions involved 245 persons, of whom 208 were punished and 37 were acquitted.

From among the twelve divisions of the circle, only four—the Darjeeling, Singbhum, Puri and Sundarbans Divisions—appear to make use of the courts to any extent.

In regard to the number and severity of the fires that took place during the year to be reported on hereafter, it is a matter for regret that it was not possible to take more offences of this nature into court.

42. The number of cases compounded under section 67 of the Forest Act was 982, involving 1,516 persons, and the total compensation received amounted to Rs. 5,753 or, on an average, Rs. 5-13-9 for each case and Rs. 3-12-9 for each person. The

Cases compounded.

following shows the results of the year in the different divisions compared with those of the year previous :—

Division.	1892-93.		1893-94.		Average—	
	Number of offences.		Number of offences.	Total amount received.	For each case.	For each person.
	Fifteen months.	Average of 12 months.				
1	2	3	4	5	6	7
				Rs.	Rs. A. P.	Rs. A. P.
Darjeeling	479	383	446	1,510	3 6 2	2 2 6
Tista	186	150	279	1,250	4 7 8	3 2 2
Kurseong	139	111	58	360	5 2 9	3 7 9
Jalpaiguri	14	11	19	178	9 5 1	4 15 1
Buxa	5	4	17	159	9 5 8	5 10 10
Direction	7	6	2	11	5 8 0	3 10 8
Palamau	23	18	6	110	18 5 4	10 0 0
Singhbhum	64	52	19	108	5 6 9	2 2 4
Angul	27	22	9	65	7 3 7	3 1 6
Puri	55	44	19	165	8 10 10	4 7 4
Sundarbans	174	139	99	1,610	16 4 2	15 12 6
Chittagong	6	5	9	292	32 7 1	6 10 2
Total ...	1,179	945	982	5,753	5 13 9	3 12 9

It is not understood how 66 of the cases of this description remained pending at the close of the year.

The large increase in the number of cases in the Tista Division is said to be due to the practice of rewarding informers as an inducement to exertion, and to prevent the passing of hush-money. No explanation has been given of the decrease in the Kurseong Division, while for that in the Singhbhum Division no reason can be assigned by the present Divisional Officer; in the Sunderbans, the fewer cases are consequent on a better observance of the law and the action introduced last year in regard to venial offences.

Cattle trespass.

43. The number of cattle impounded, of which a statement is given in paragraph 54, is very small, and only reached 1,762 for the circle.

(2) *Protection from Fire.*

Results of the year.

44. Form No. 53 gives the results of the year in detail of divisions, while the following two statements exhibit the same in abstract form for reserved and protected forests, the information for unclassed forests not being available, and even that for protected forests being doubtful.

Abstract showing areas (in acres) burnt and unburnt.

(Excluding unclassed forests.)

	Reserves.	Protected forests.	Total.	Grand Total.	Percentage of area involved.	Percentage of entire area.
1	2	3	4	5	6	7
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Areas of which the protection was attempted, but which were burnt (Form No. 53) ...	440,713	...	440,713	...	36·80	7·75
Other areas burnt ...	(a)41,009	322,600	363,609	...	8·09	6·39
Total areas burnt ...	481,722	322,600	804,322	804,322	...	14·14
Areas successfully protected (Form No. 53)	756,728	...	756,728	...	63·20	13·30
Other areas which escaped burning	2,493,322	1,635,000	4,128,322	...	91·91	72·56
Total areas unburnt ...	3,250,050	1,635,000	4,885,050	4,885,050	...	85·86
Grand total area of reserved and protected forests (Form No. 46)	3,731,772	1,957,600	5,689,372	5,689,372	...	100·00

(a) Includes 20 095 acres burnt by the Department in the Jalpaiguri Division.

Number of fires and areas burnt in each division.

(Excluding unclassed forests.)

Division.	Number of fires.		Areas burnt (in acres).					
			1892-93.			1893-94.		
	1892-93.	1893-94.	Specially protected (Form 53).	Other areas.	Total.	Specially protected (Form 53).	Other areas.	Total.
1	2	3	4	5	6	7	8	9
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Darjeeling ...	...	2	...	...	...	6	...	6
Tista	...	3	...	...	...	1,454	...	1,454
Kurseong ...	...(a)	1	4	...(a)	4	...	5	5
Jalpaiguri ...	2	9	160	23,320	23,480	5,401	20,095(b)	25,496
Buxa	3	4	15	825	840	326	20,909	21,235
Direction ...	1	...	1,900	...	1,900	...	...	...
Palamau	3	4	8,960	...	8,960	16,350	...	16,350
Singhbhum ...	...(a)	50	8	...(a)	8	402,538	320,000	722,538
Angul	...	12	...	...	...	14,590	...	14,590
Puri	1	23	5	...	5	48	2,600	2,648
Sundarbans ...	...	...	...	...	...	...	...	...
Chittagong ...	...	...	...	...	...	...	...	...
Total ...	...	108	11,052	24,145	35,197	440,713	363,609	804,322

(a) Not given by Divisional Officer.
(b) Burnt by the Department.

The area attempted to be protected, comprising reserved forests only, has decreased by 18 square miles, and now stands at 1,871 square miles, or 32 per cent. of the total area of the forests as compared with 1,889 square miles (wrongly given as 1,890 square miles in last report) during the year previous. In the Jalpaiguri Division, for some reason unexplained, 17,189 acres previously protected have been abandoned, while 6,625 acres, the newly reserved Khurchuta forests, have for the first time been specially treated.

The failures of the year have been abnormal and unprecedented; they aggregate 689 square miles, or 37 per cent. of the area attempted, against 17 square miles in 1892-93; thus the area successfully protected during the year compares very unfavourably with that of the previous year, amounting to no more than 1,182 square miles, or 63 per cent., out of 1,871 square miles, on which measures of protection were adopted, against 1,872 square miles or 99 per cent. in 1892-93.

The sum spent during the year on these artificial measures was Rs. 9,627 or Rs. 5 per square mile, compared with Rs. 8,136 or Rs. 4 during the previous year. Thus, while the cost of protection rose almost one rupee per square mile, and its efficiency presumably in a like degree, the success was worse by 36 per cent., the cost per square mile that escaped burning being Rs. 8 against Rs. 4, or almost double.

It will be shown later on that these unsuccessful results are almost entirely due to the misfortune of the Singhbhum Division. Eliminating the operations and failures in that Division, it is observed that the success of the year's endeavours compares favourably with that of previous years, and that the area burnt is only 5 per cent. of the area attempted to be protected.

45. *General remarks.*—A little consideration of the above figures, aided with the statement given in Appendix B, showing the results of fire protection for the last 18 years, will show what little effect special measures have so far attained, and that from a practical point of view, we are yet almost entirely at the mercy of the seasons. Moral persuasion and the power of the law seem, however, to have been but little used, and it is hoped when the incalculable amount of damage such disastrous fires must do is fully realized by the district authorities, that with their help and in such degree as energy and determination is shown by them, coupled with a firm administration of the law, success in our endeavoures will be ensured, and the amelioration of the evil attained. Fire

protection is essentially a measure in which the cordial co-operation and aid of district officers must be enlisted. Without the influence such officers can and ought to bring to bear on the surrounding ignorant population, the expenditure of lakhs of rupees on the part of the forest officers in special protective measures must remain as futile as previous records show it to have done. It is not sufficient to preserve a forest from fire for one year; to be of real use the protection must be permanent and that we cannot relax our attention, it must be remembered that in a few hours the work, care, and expense of years may all be lost.

The importance and magnitude of the matter are clearly evident when it is realized that during the last 18 years no less a sum than Rs. 2,07,749 have been spent on the safeguarding of 1,889 square miles of forest, with the result that in the eighteenth year no less than 689 square miles of this area has been burnt.

Details by Divisions.

46. The divisions which have contributed to the non-success of the year are, in point of degree, the Singhbhum, the Palamau, the Angul, and the Jalpaiguri Divisions; in Tista 1,454 acres, in Buxa 326 acres, in Puri 48 acres, and in Darjeeling 6 acres only were burnt, while in Kurseong and Hazaribagh no fires were recorded.

In Singhbhum, where the whole area of the reserved forests, 732 square miles, was attempted to be protected, the disasters of the year were by far the heaviest; in spite of an expenditure of Rs. 1,535 or Rs. 2 per square mile on 869 miles of fire-paths, and the employment of 72 special watchers, no less than 86 per cent., or 629 square miles of the area taken in hand, was burnt as against 8 acres last year. There seems no doubt that this misfortune was due to the lawlessness of the surrounding population, which, seizing the opportunity of, it cannot but be thought, a lax establishment and of a most unusual dry season, and so a most favourable one to it, appears to have carried out its wilful designs without hindrance in a most thorough, but to us most ruinous, manner, for no more reason than that it should thereby obtain ample employment in the collecting of a more abundant crop of sabai grass. Not a single arrest has been made, and the damage sustained by Government has gone without the slightest punishment; nor does it seem that the aid of the district authorities was invoked or given, except in the distribution, at the beginning of the season, of notices, which have been mere waste paper. The Divisional Officer, Mr. Chester, was, however, in very bad health, and not equal to his duties, though he had the help of two assistants.

The following is an extract from the divisional report in this connection written by Mr. Lovegrove, who at that time was one of the assistants:—

"On the surface there is nothing to notice in the measures adopted during 1892-93 to warrant such a difference in the failures, and one is almost inclined to put the matter down to chance; this, however, will be thought absurd, but when taken into consideration with the difference of the rainfall for those years, it will be seen that the chance devolves itself into the rainfall. The following table has been taken from the records of Chaibassa:—

Month.	1891. Inches.	1892. Inches.	1893. Inches.	1894. Inches.
January ...	...	...	0·53	...
February ...	0·78	1·28	6·01	0·57
March ...	5·19	...	2·74	0 04
April ...	0·07	0·24	0·80	1·21

"Forest-fires generally take place in March and towards the end of that month.

"In putting down the result as depending directly and wholly upon the rainfall of the months of February and March, the Divisional Officer has been influenced by his convinced opinion that the forests during the year under report have mostly been burnt by means of incendiarism; thus, year after year, the villagers have entered our forests to light fires for the purpose of burning down the small jungle to favour the sabai grass crop for the next year, which fires have spread as far as possible, governed only by the rainfall and the inefficient efforts of the forest staff, the latter this year failing altogether, as the fires moved too rapidly.

"In spite of the great number of different fires, 50, not one has been traced to its source; therefore it is certain that:—

(*a*) The forest guards and fire patrols have not done their duty.
(*b*) That the cause of the fires has not been discovered, because it took care not to be so."

In this division the expenditure per square mile successfully protected was Rs. 15.

It may be remarked that the Conservator had no knowledge that these regrettable events were happening, and though perhaps he could have done little to prevent them, steps have now been taken whereby he will in future, at least, be informed of them as they occur.

In Palamau, while only 8,960 acres were burnt last year, fires extended over 16,350 acres during the season under report. The Divisional Officer writes:—

"The fire season of the year was a trying one, as there was no rainfall from October 1893 to the beginning of June 1894. High westerly winds blew throughout the whole fire season. Further, the jungly people of the place are in the habit of setting on fire the forest to facilitate hunting and shooting."

In Angul no fires occurred in 1892-93, while in 1893-94 fire raged over 14,590 acres. The reasons assigned for this unsatisfactory result are the small heed paid to the control of fires in the adjoining native states, and the facility with which fires cross over and enter the Government forests, the little forethought shown by the neighbouring villagers in Angul itself in setting fire to the outside waste lands to benefit toila cultivation and grazing, and the incapability, through ill-health, of the Range officers.

In Jalpaiguri fires took place over an area of 5,401 acres compared with 160 acres in 1892-93; nevertheless the results obtained are considerably above the average, and may therefore, considering the particularly dry and windy weather experienced in March, April and May, be held to be satisfactory. Protective measures in this division involved the departmental burning of 20,095 acres of savannahs marching with boundaries and public roads, and the whole of the Dainah forest. The burning of these savannahs early in the season seems imperative to avoid the damage done by late fires, from which it is otherwise almost impossible to protect them Such lands to the south of the Dalgaon forest had not been so burnt this year owing to the young poles growing on them, but unfortunately they did not escape.

In accordance with the request contained in paragraph 7 of the Government of India's review on the Forest Administration, for 1891-92, the results of the burning of these savannahs have been given in a note by Mr. Haines, forming Appendix C to this report.

In Puri the results were singularly successful, and reflect credit on the Divisional Officer, Extra Assistant Conservator Babu Sreedhur Chuckerbutty.

Classification of fires.

47. Next year an attempt will be made to classify all fires according to their supposed origin.

Prosecutions for fires.

48. Considering the number and extent of the fires of the year, it may not be out of place to give in detail the results of prosecutions undertaken in this connection :—

Division.	Cause of fire.	Extent in acres.	Punishment awarded.
1	2	3	4
Palamau ...	Shooting ...	8,120	15 days' imprisonment.
	Malicious ...	5,020	3 men fined Rs. 5 each.
Angul ...	Graziers ...	5,120	1 month's hard labour.
Puri ...	Malicious ...	8	3 months' rigorous imprisonment.
		2	2 women, 15 days' each rigorous imprisonment.
		1	21 days' rigorous imprisonment.

Nine cases were compounded. Comment on the past seems superfluous; action in the future imperative. The present Conservator has expressed his disapproval of accepting compensation under section 67 of the Forest Act in offences by fire.

Fire protection rules.

49. The rules framed under section 75 (*d*) for the control of fires in the vicinity of reserves applicable to all divisions but Puri, Sundarbans and Chittagong, have not been much used; 36 notices under rule I (1) were received—24 in Palamau, 6 in Tista and 6 in Singhbhum. There were no prosecutions for breaches of these rules, and no fires appear to have been caused through their non-observance.

(3) *Regulation of Grazing and Protection from Cattle.*

Regulation of grazing.

50. Forms Nos. 54 and 55 exhibit the area closed and open to grazing and the number of animals that have grazed during the year.

Details for Reserved Forests.

51. Of the reserves, out of a total area of 5,831 square miles, 3,464 square miles are closed altogether, and on 2,092 square miles in the Sundarbans no grazing is possible;

practically, therefore, an aggregate area of 5,556 square miles or 95 per cent. is entirely free from grazing, as against 4,865 square miles out of a total of 5,211 (which should have been 5,703) square miles in 1892-93.

Apparently grazing has hitherto been regarded in Bengal as inimical to the proper management of forests; certainly it is not much practised in the reserves, and produces but a small income.

Form No. 54 is a good deal open to opinion, and this year the area closed to browsers as well as to other animals, that is to all animals, has not been repeated, as was done last year; merely the area closed to browsers only, but open to other animals, finds a place in column 4 of the form; hence the area under this category, though practically the same as last year, has been reduced from 4,964 square miles to 20 square miles.

Similarly, there is little difference in the area open to all animals throughout the year. The forests opened temporarily last year in Angul have since been closed, and the area of 241 square miles, on which grazing of all kinds was then admitted, now stands at 224 square miles, or 4 per cent. of the total area.

Details for protected and unclassed forests.

52. It is useless making comparisons in regard to protected and unclassed forests, which appear scarcely yet to be thoroughly under the management of the Department, though they have been on the books for the last two and twelve years respectively.

Touching the protected forests, however, it may be observed that the Sundarbans forests which, similarly to the reserves of that division, do not afford grazing, have been for this reason, and not, as implied in paragraph 57 of last report, because ample grazing land exists outside, relegated to the 'closed' category as being more in conformity with the existing state of affairs; no addition to the area from which goats and sheep have been excluded in the Puri forests, recorded in 1892-93 as insufficient, has been made.

As regards the unclassed forests, an error of 500 square miles is noticed in the previous year's return.

Number of cattle grazing and revenue realized.

53. Eliminating the evidently unreliable estimates for the Khurda Government estate, which materially swell the total number of cattle that find pasturage in the forests, the unnoticed protected forests of the Chota Nagpur Civil Division, and the unclassed forests of the Chittagong Division about which, as regards grazing, there is also no information, the following are the results of the management of grazing for the year under report:—

	Square miles grazed over.	Number of animals that grazed.	Total revenue realized.	Average per acre.	
				Head.	Revenue.
1	2	3	4	5	6
			Rs.		
Reserves ...	224	3,793	7,722	·026	10 pies.
Protected ...	300	9,901	3,141	·052	10 „
Total ...	524	13,694	10,863	·04	6 „

Of the above, 1,056 head were admitted at privileged rates in the Tista Division at a loss of Rs. 630, while 258 grazed free, the full rates therefor amounting to Rs. 573. Under the rules in force in the Puri protected forests, Rs. 1,520 are estimated to have been collected from the Khurda raiyats for grazing valued at Rs. 45,000.

The number of animals on which full fees were paid, and the consequent revenue realized in these forests, have been considerably swelled owing to the settlement during the year of certain disputes in connection with which the money involved ought to have been treated as an outstanding of 1892-93, and is not correctly a receipt of the year under report. Though 29 square miles in the Singhbhum Division were open to grazing, the number of cattle

that grazed has not been mentioned by the Divisional Officer, nor apparently has any revenue been realized therefrom.

Protection from cattle.

54. There is no special protection against the ingress of cattle into closed areas; 1,979 animals were found grazing without permission, for which compensation was accepted under section 67 of the Forest Act, while the following were impounded during the year :—

Division.	Number of Cattle.				
	Buffaloes.	Bullocks and cows.	Goats and sheep.	Other animals.	Total.
1	2	3	4	5	6
Reserved Forests.					
Darjeeling	...	51	...	10	61
Buxa	401	...	...	...	401
Singhbhum	67		...	...	67
Puri	156	476	...	...	632
Total ...	624	527	...	10	1,161
Protected Forests.					
Puri	40	29	190	342	601
Grand Total ...	664	556	190	352	1,762

There is no record of any previous impoundage.

(*c*) Improvement of forest growth.

(1) *Natural reproduction.*

General remarks.

55. The conditions as regards natural reproduction being so different, it is difficult to remark briefly on the subject for the circle as a whole.

In the hills satisfactory advance is apparent, while in the Terai, Chota Nagpur and Orissa, it is in part only promising. With one exception, however, the year under report has been a favourable one for seed generally, and the sál is reported to have borne profusely in all parts, and in consequence numerous seedlings of the year have been noticed. In addition there has been a general flowering and consequent dying off of the bamboo in the Tista and Kurseong forests, which is notably in Tista, enabling the sál to gain ground in a successful manner. In the Sundarbans, the prevailing conditions render reproduction marvellous and altogether prohibit any chance of failure; from Chittagong information is wanting.

The great and chief impediment to the advance of the sál tree in sál bearing tracts of Bengal seems to be the constant fires that periodically sweep over the forest and burn down the young seedlings before they can attain any size; the process, being repeated year by year, gradually converts the seedling into a coppice shoot which, in its turn, must struggle on until a lucky chance of two or three years' respite allows it to outgrow the danger.

Remarks by Divisions.

56. In Darjeeling, Mr. Davis reports the Champ only requires protection from grazing to form valuable forests, while natural seedlings of the Acer Campbellii are found all over. A large quantity of natural seedlings of the Cryptomeria Japonica have been found under parent trees; some have been removed elsewhere, but careful notes of their power to maintain themselves will be made of the rest. Seedlings of Utis (Alnus Nepalensis) were also discovered in the Senchal forest, and an acre of ground under parent trees was experimentally cleared to further germination.

In Tista, as in Kurseong, the chief event to record is the flowering of the Bamboo, Dendrocalamus Hamiltonii. Many promising seedlings and thickets of sál have been noticed

by Mr. French, especially in Mangchu, Sungsur, Rinkimpong, Nazzeok, and Gooling blocks, while most of the different species flowered profusely; the sál, though full of seed in most other divisions, scarcely flowered at all.

In Jalpaiguri, the remarks made last year bear out the facts of the year under report. The Rajadanga block shows scarcely any natural reproduction owing to fires, and savannah grasses would appear here to be gaining advantage.

Coppice reproduction has claimed great attention; it seems that stools of 2 feet in girth send out shoots the most readily, though much depends on the vital energy of the stool, due to locality, &c. Shoots seldom, if ever, appear from the crown of the stool, probably owing to injury of the bark through felling, in which case there is a marked tendency to produce lateral shoots.

In Palamau and Singhbhum natural reproduction is not satisfactory, the seedlings that do germinate having to contend against too many adverse circumstances.

In Angul conditions are favourable, and natural reproduction is described as all that could be desired.

In Puri excessive grazing and toila cultivation are reported to be most harmful.

In the Sundarbans the conditions of abundant moisture and an extremely rich soil beneath a tropical sky ensure a rapid growth of young seedlings; indeed, it is only a very small percentage of those seedlings that survive the struggle for existence consequent on the densely overstocked and crowded condition of the crop and the deficiency of light. The year under report was characterized by a somewhat meagre flowering of Sundri owing probably to the peculiar weather conditions.

In Chittagong the reproduction of bamboo was excellent.

(2) *Artificial reproduction.*

General remarks.

57. According to Form No. 56 the artificial reproduction operations of the year extended over an area of 101 acres, but, after allowing for 8 acres failures, increased the total area stocked by 93 acres only from 4,497 acres at the commencement of the year to 4,590 acres at its close.

The total expenditure of the year amounted to Rs. 2,661 against Rs. 3,220 during the year previous; of this sum was spent—

		Rs.
On up-keep		1,123
„ nurseries		884
„ new works		652
„ experiments		2
Total ...		2,661
In the Darjeeling Division		1,632
„ Chittagong „		924
Total ...		2,556

Regular plantations.

58. No change was made in the area of 'regular' plantations, but the cost of maintenance amounted to Rs. 1,063, of which no less than Rs. 924 were expended in the Chittagong Division on 660 acres of the Sitapahar plantation.

Cultural operations.

59. The net addition to the area of cultural operations was, as mentioned in paragraph 57, 93 acres, costing Rs. 652.

Details by divisions.

60. The record of those divisions in which works of this nature are carried on is as follows:—

Darjeeling.—Operations are regulated by the working plan, under the provisions of which 318 acres should be undertaken annually. The work of the year, comprising only 80 acres, has therefore fallen far short of the prescriptions, the explanation for which is the deficiency of available material. The expenditure was Rs. 1,632, of which Rs. 137 were spent on the up-keep of existing plantations and Rs. 884 on nurseries, while new planting cost Rs. 609, or Rs. 7·6 per acre, against an estimated cost of Rs. 18·5 according to the plan.

The older plantations are on the whole progressing favourably, while the earlier work of the year under report is reported to be unsatisfactory; failures amounting to as much as 50 per cent. to 70 per cent., due probably to late planting, imperfect clearing and too heavy felling having occurred. The experimental planting of 100 oaks and other trees in March last is said not to have succeeded, though the reason of this failure is not recorded.

No mention has been made of the area of nurseries established, but the Divisional Officer is taking measures to avoid the difficulties that have arisen in this connection during the present and the past years in carrying out the provisions of the plan.

Kurseong.—Fifteen acres were sown broadcast on the newly-acquired land at Paglajhora; 250 seedlings were also put out, and 6 nursery beds prepared. In the western range the forest guards planted out 500 India-rubber cuttings at no expense.

Established plantations are doing fairly well; at Bamanpokri the rubber trees have attained an average height of 50 feet, and are about 2 feet in girth, likewise the teak. The present average girths of a few selected trees of the species planted in Dhobijorah in 1886 are as follows:—

Cypress	...	...	46 inches.
Cryptomeria	...	...	39 „

Jalpaiguri.—The scheme adverted to in paragraph 63 of last year's report has been taken up, and 125 acres savannah land given out, one-third of which is to be planted during the present rains.

Palamau.—Six acres of blanks in the Kechki forest were sown with khair with the plough at a cost of Rs. 22; the seed germinated freely, but the young seedings were damaged by hares.

The 28 mahogany plants put out on the roadside in Betla forest are doing exceedingly well; they are now 10 to 12 feet in height. The devi-devi at Daltonganj are not thriving.

Angul and Puri.—The teak plantations at Bishondhanagra and Tikarpara in the former and at Barunai in the latter division are progressing favourably.

Chittagong.—The mahogany at Sitapahar and rubber at Kaptai are reported to be flourishing; the teak plantations of 1885 to 1892 at Kaptai, which continue to be a success, were cleared of jungle and thinned at a cost of Rs. 465, the material obtained being sold for Rs 90. One hundred and eight rupees in addition were spent on temporary plantation establishment, while Rs. 324, pay of the crew and up-keep of a dák-boat at Kaptai, have also been charged to this head, an expenditure which should perhaps more properly come under AII.

3) *Early thinnings.*

Early thinnings.

61. These may be subdivided into (*a*) thinnings, (*b*) climber cutting.

(*a*) *Thinnings.*

Thinnings in the Darjeeling forests.

62. The only regular thinnings are those prescribed in the working plan of the Darjeeling forests, and in regard to them the Divisional Officer reports there were no young plantations in the blocks prescribed, and so no thinnings were required.

Thinnings in other divisions.

63. In the Kurseong and Buxa Divisions the operations arranged for last year, as noted in paragraph 65 of the report for that year, were continued, but the absence of a demand for the material marked has again operated as a check on their advancement. However, in Kurseong 7,073 cubic feet and Buxa 16,868 cubic feet were removed, for which Rs. 2,020 and Rs. 4,988 respectively were realized.

In the Puri Division improvement fellings of the nature of thinnings were undertaken over 690 acres, yielding an estimated outturn of 70,988 cubic feet, which sold for Rs. 466.

In the other divisions no operations of this nature were performed.

(*b*) *Climber cutting.*

Climber cutting.

64. The following are the areas over which climber and creeper cutting was extended:—

Division.	Acres.	Cost.	Average per acre.
1	2	3	4
		Rs.	As.
Darjeeling ...	4,002	335	1·50
Tista ...	2,560	200	1·25
Kurseong ...	9,524	624	1·20
Jalpaiguri ...	265	15	0·91
Buxa ...	10,700	454	0·67
Puri ...	730	14	2·49
Chittagong ...	135	28	3·32
Total ...	27,916	1,670	1·04
1892-93 (15 months) ...	32,071	2,142	1·07

In the Darjeeling, Kurseong and Puri Divisions areas of 421, 1,254 and 640 acres were left unpaid for.

The work in the Darjeeling Division has been carried on under the prescriptions of the working plan which have been adhered to.

In most other divisions the actual work performed fell short of the prescriptions of the annual plans of operations, chiefly owing to the difficulty of procuring labour.

(4) *Experiments.*

Experiments.

65. The results of annual measurements to ascertain the rate of growth of sundri in the Sundarbans and sál in the Puri Division are given in Appendix A. An experiment to aid natural reproduction of the utis has already been noticed in paragraph 56. No remarks regarding the success or otherwise of the 16 acres planted up last year with Caryota urens in the Darjeeling Division have been recorded.

The English oaks (Quercus pedunculata), referred to in paragraph 67 of the report for 1892-93, are doing well, and are now 6 to 12 inches in height.

(*d*) Exploitation of major forest-produce.

General.

66. This is a subject that was treated at length and in great detail by Mr. Dansey in the report of last year; and as the system of exploitation has in no way been changed during the year under report, it is not thought necessary to repeat what was then said, but merely to give a few remarks on the different methods of fellings adopted.

These methods are, however, at times difficult to distinguish, and in some cases it is possible that improvement fellings may have been classed as selection fellings, especially where the manner of execution rather than the object in view has been the guide for distinction.

It is not possible from the information afforded by Divisional Officers to compile a statement showing the yield of each class of felling, though an attempt will be made to do so next year.

(*i*) *Regeneration fellings.*

Regeneration fellings.

67. The only regeneration fellings undertaken are those prescribed by the working plan for the Darjeeling forests; these for the year have apparently been duly carried out, but the Divisional Officer is not very clear on the point.

(*ii*) *Selection fellings.*

Selection fellings.

68. Selection fellings take place in the Tista, Jalpaiguri, Buxa, Singhbhum, Angul and Puri Divisions, but to no large extent, except in Singhbhum, where they comprise (regulated by the demand) some 2,000 sál trees; in the other divisions they are at present, and pending the preparation of a working plan or the advent of a more brisk demand, limited chiefly to the exploitation of a few green sál trees for the requirements of Public Works or the Bengal Duars Railway.

(*iii*) *Improvement fellings.*

Improvement fellings.

69. Under this head have been classed all those fellings which are made with strict regard to the welfare of the existing crop. Except in Darjeeling and the Sundarbans, where they form in the latter the chief and in the former an important object of the working plans framed for these forests, and are regulated by those plans, improvement fellings are practised in the Tista, Buxa, Angul, and Puri Divisions, but are generally confined to the extraction of inferior species.

In Darjeeling it would seem that the provisions of the working plan in which these fellings are designated "amelioration fellings" have been grossly misunderstood, and in some instances the actual removals may have doubled the prescriptions. The error was brought to light through the scrutiny by the

Inspector-General of Forests of the control forms, and will in future be avoided, though the damage done is significant.

In the Sundarbans the fellings were for the first time governed by the working plan, which was brought into effect from the 1st July 1893. They have been carried out in strict conformity with the plan, and have comprised the coupes of the year (one-tenth of the total area) in the Khulna and Bagirhat working circles. The fellings have been classed as improvement fellings in agreement with the plan.

(*iv*) *Coppice fellings.*

Coppice fellings.

70. Coppice fellings are restricted to the Jalpaiguri Division, where they have been undertaken with the object of obtaining experience in furtherance of the proposed working plan. They extended to 428 acres, and produced 202,712 cubic feet of timber and fuel.

(*v*) *Unregulated fellings.*

Unregulated fellings.

71. In several divisions exploitations of a petty nature took place without method. In the Sundarbans and Chittagong Divisions, however, they comprised the chief removals of the year, extending in the former over the whole of the division except the Khulna and Bagirhat working circles, and in the latter over the unclassed forests. In Jalpaiguri they comprised the clearings for road traces and produced 262,782 cubic feet of timber and fuel.

(*e*) Extraction and Transport of major forest-produce by land and water.

General.

72. This subject also received careful handling by Mr. Dansey in his report for last year, paragraphs 81 to 83, and general conditions having remained unaltered, there is little further to remark on.

The construction of the East Coast Railway has advanced, and the Kuch Bihar line has been opened to traffic, while Form No. 51 will show the progress made during the year in the completion of roads. There is no doubt that although the extraction of forest produce is, and may continue to be, entirely in the hands of purchasers, still the want of communications is one of the great drawbacks the forests in Bengal have to contend with in the matter of disposal of the material they produce. It would seem also that in Angul and Puri, the bad reputation the forests bear for unhealthiness plays an important part in this connection, and operates to no small extent in curtailing exploitation in these forests. Indeed, it is largely to this cause that the East Coast Railway is unable to avail itself of timber ready marked for it in the Banpur forests in Puri. Sawyers, it is said, will not remain in the forest and transport the timber to the nearest village there to be cut up, thus increasing the expense of conversion to a prohibitive extent, which is seemingly forcing the Railway administration to look to Burma for their supply of sleepers, the alternative being a reduction in the at present low departmental rate of four annas per cubic foot in the log. In Angul, too, it is reported that the unhealthiness of the forests has a great deal to do with the difficulty of procuring a demand and working the forests.

Divisional details.

73. Land transport pertains in all divisions, and is especially had recourse to by means of coolies and carts (where possible) in the hills, and by carts on level ground in the lower situated forests. Water transport by boats is the chief method in vogue in Chittagong and the Sundarbans, while floating is, to some extent, practised in Jalpaiguri, Palamau and Angul. Railways further export in regard to the produce of the Jalpaiguri, Buxa and Singhbhum Divisions, and will also shortly aid in Puri. Though the Darjeeling and Kurseong forests have the Railway in close proximity, or in their midst, yet but little produce finds its way to the markets through its medium.

In Darjeeling, the Divisional Officer, Mr. Davis, in opposition to the remarks made in paragraph 82 of last report in this connection, advocates the construction of a tramway to also tap the contiguous tea estates, but considering the small outturn of this division, the financial success of such a scheme would be extremely doubtful.

(*f*) Exploitation of minor forest-produce.

(1) *Extraction of fodder.*

Fodder.

74. Form No. 58 will show that fodder, which includes the leaves of the maling bamboo and tree-loppings, is only exploited in small quantities, chiefly from the hill divisions. The year's output was 198,014 loads or maunds, bringing in

Rs. 2,163, all, except 507 maunds, being removed by purchasers. Stall-feeding is reported to be unknown in Palamau, while in Singhbhum and Puri the protected forests produce all that is required by the people, though no yield has been shown from such forests.

(2) *Grazing.*

Grazing.

75. This subject has already been dealt with in paragraphs 50 to 54. The estimate of 160,000 head of cattle grazing in the Puri protected forests has been arrived at on the presumption that each household grazes four animals.

(3) *Miscellaneous produce.*

General.

76. The importance of the varied miscellaneous minor products of the Bengal forests is daily increasing, and there is no doubt that, with a little trouble and attention, a very great development is possible. In Singhbhum especially has the opening of the Bengal-Nagpur Railway, linking as it does the forests of this division with the Calcutta market, created an impetus which can only be viewed with the greatest satisfaction. No marked increase in exploitations of this nature shows itself during the year under report, but enquiries by the Conservator in Calcutta, since the close of the year, and the applications from several firms received in consequence thereof, fully justify the conclusions that a considerable rise in the magnitude and importance of these transactions is within a near future.

Miscellaneous produce is exploited almost exclusively by purchasers on leases, and further justification of the above statement will be given in the chapter following under the different main heads dealing with the removals of such of these products as, from their present importance, not perhaps yet as a forest product so much as an article of trade, seem to call for separate remark.

The Forest Department Code prescriptions not indicating a place for bamboos under this head, it may here be noted that this class of produce is also exploited chiefly by purchasers to some extent in all divisions, but mainly in Chittagong, the extraction being for the most part by water.

CHAPTER III.—GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

SUMMARY OF PRODUCE REMOVED FROM THE FORESTS.

Summary of removals.

77. Forms Nos. 57 and 58 show the gross yield and outturn of the forests by the several agencies of exploitation, whilst form No. 59 is confined to operations conducted by the Department directly.

The following tables extracted from the above-mentioned forms give the outturn of the year under report compared with the previous year, of which the figures have also been reduced to an average of twelve months to admit of comparison between equal periods:—

(*a*) *Timber.*

YEAR.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	C. ft.	C. ft.	C. ft.	C. ft.
1893-94	3,840,695	351,664	528,261	4,720,620
1892-93 (15 months) ...	7,301,144	283,493	504,891	8,089,528
1892-93 (12 ditto average) ...	5,840,915	226,794	403,913	6,471,622
1891-92	6,425,536	350,500	484,689	7,260,725
Difference in 1893-94 (12 months) ... ... More	...	124,870	124,348	...
Difference in 1893-94 (12 months) ... ... Less	2,000,220	...	...	1,751,002

(b) Fuel.

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	C ft.	C. ft.	C. ft.	C. ft.
1893-94	11,007,401	2,152,339	160,150	13,319,890
1892-93 (15 months) ...	12,045,077	2,044,939	605,460	14,695,476
1892-93 (12 ditto average) ...	9,636,062	1,635,951	484,368	11,756,381
1891-92	9,740,771	3,884,870	764,587	14,390,228
Difference in 1893-94 (12 months) ... ... More	1,371,339	516,388	...	1,563,509
Difference in 1893-94 (12 months) ... ... Less	...	...	324,218	...

(c) Bamboos.

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	No.	No.	No.	No.
1893-94	6,322,492	2,725	10,776,291	17,101,508
1892-93 (15 months) ...	6,977,248	16,870	10,687,482	17,681,600
1892-93 (12 ditto average) ...	5,581,798	13,496	8,549,986	14,145,280
1891-92	5,731,466	158,641	10,339,837	16,229,944
Difference in 1893-94 (12 months) ... ... More	740,694	...	2,226,305	2,956,228
Difference in 1893-94 (12 months) ... ... Less	...	10,771	...	...

(d) Grass and other minor produce.

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
1893-94	93,340	23,586	6,064	1,22,990
1892-93 (15 months) ...	97,158	15,574	10,475	1,23,207
1892-93 (12 do. average) ...	77,726	12 459	8,380	98,565
1891-92	81,118	11,148	8,474	1,00,740
Difference in 1893-94 (12 months) ... More ...	15,614	11,127	...	21,425
Difference in 1893-94 (12 months) ... Less ...	...	...	2,316	...

78. In these statements the estimated outturn of the Puri protected forests has, as usual, been excluded owing to its unreliability, though in future years endeavours will be made to arrive at more accurate figures, in order to be able to deal with the total outturn of the forests, and not merely with a portion thereof.

Outturn excluded from comparison.

It may be remarked that the removals in timber and fuel from these forests are identical with last year's figures, and, as estimated by the Divisional Officer, compare with the total removals from *all* other forests of the circle as 7 to 9, while the area is 311 square miles against 12,613 square miles.

It is matter for consideration whether this outturn would not more appropriately appear in the column "produce removed or utilized by right-holders."

In 1892-93 the outturn included—

	Timber.	Fuel.	Total.
	Cubic feet solid.		
Removals from Sundarbans leased lands.	15,845	462,353	478,198
Gandak drift	7,125	...	7,125
Kusi „	15	...	15
Total ...	22,985	462,353	485,338

During the year under report the receipts from these sources have only been shown at foot of Form No. 57, since they have not been obtained from lands under control of the Department. For purposes of comparison these were, however:—

	Timber.	Fuel.	Total.
	Cubic feet solid.		
Sundarbans leased lands ...	236,499	415,702	652,201
Gandak drift	4,757	14,266	19,023
Total ...	241,256	429,968	671,224

Drift timber operations on the Kusi river have been abandoned, as noted in paragraph 186 of last report.

Under fuel also no account has been taken by the Divisional Officer, and consequently in this report, of the removals by privileged villagers from the Saitba reserved forest of Singhbhum, which last year were estimated at 353,440 cubic feet, though excluded from the comparisons.

Under bamboos the estimated quantity extracted by privileged raiyats of Puri from the protected forests of that division has, as explained above, been excluded. The number amounted to 4,000,000 as compared with 17,101,508 from the remainder of the forests of the circle, and was the same as shown last year.

Again, under grass and other minor produce has also been omitted on this account from the figures of both years the value of privileged removals estimated at Rs. 1,25,581 as follows:—

Grazing.	Minerals.	Miscellaneous.	Total.
Rs.	Rs.	Rs.	Rs.
45,000	2,000	83,333	1,30,333

less Rs. 4,752 credited under RII and RII(*g*).

It may be remarked that the value of the privileged grazing has undergone a reduction of Rs. 11,250, while the number of cattle that is said to have grazed has remained the same.

Of the year's receipts, Rs. 1,088 represent the realizations from leased lands in the Sundarbans which, for reasons given above, also do not appear in Form 58. Last year they amounted to Rs. 1,770.

Outturn of the year.

79. The outturn of the year compared with that of the previous forest year's average of 12 months shows that while the protected and unclassed forests have each yielded slightly more timber during the year under report, the reserved forests have produced over 20 lakhs less, and that thus the net result is a decrease of more than 17 lakhs cubic feet. Against this, however, is an increase of over 15 lakhs cubic feet firewood; thus in timber and fuel together the outturn is 187,493 cubic feet less than in 1892-93.

But this is merely nominal, and, as will be shown hereafter when dealing with the different methods of exploitation, is entirely due to incorrect estimates of removals of firewood by tea estates in the Jalpaiguri Division in that year, which were over twelvefold in excess of what is now considered to be proper; thus, according to the new factor of conversion, no less than 1,555,943 cubic feet would be deducted from the outturn of fuel in this division during 1892-93,

making the total amount of firewood during the year under report 2,808,264 cubic feet in excess of that of last year, instead of 1,563,509, and reducing the deficit of 187,493 cubic feet under timber and fuel to a real increase of 1,057,262 cubic feet during the year.

In bamboos a more active market led to an increased outturn of almost 30 lakhs, chiefly from the unclassed forests, the protected areas showing a slightly smaller yield.

There was a satisfactory rise in the value of other minor produce removed, amounting to Rs. 24,425. But this again unfortunately must undergo considerable manipulation before it can be accepted as against last year's figures. For instance, it includes Rs. 4,752 credited in Form 61 under revenue heads II and II(*g*) (a portion of the Rs. 1,30,333 unreliable estimates for Puri), which was entirely omitted last year, and excludes Rs. 1,088 realized from lands not under the Department, while in 1892-93 Rs. 1,770 were entered on this account in Form No. 58. In the figures of the year are incorporated Rs. 6,583, the estimated value of free grants, against Rs. 3,438 in 1892-93.

Government Agency Account (Form No. 59).

80. Form No. 59, showing the departmental operations, has been prepared in accordance with the existing practice in Bengal. It does not tally with Form No. 57 as regards outturn, in so far as it includes in receipts material in stock in forest depôts at the commencement of the year and disposed of during the year, that is outturn of previous years It is regretted that no alteration can now be made for the year under report, but in subsequent years an agreement between the two forms will be arrived at. However, this can only be done by including in Form No. 59 the balance at forest as well as at sale depôts, and in this connection it is observed that while the sample form in the new edition of the Forest Department Code admits of this procedure, the section referring to its preparation (section 272) seems to preclude it.

(1) Departmental Operations.

Departmental operations.

81. The following tables show the operations undertaken directly by the Department:—

(*a*) *Timber.*

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	C. ft.	C. ft.	C. ft.	C. ft.
1893-94	64,284	938	15,911	81,133
1892-93 (15 months) ...	4,663	3,029	14,992	22,684
1892-93 (12 ditto average) ...	3,730	2,424	11,993	18,147
1891-92	7,516	...	16,238	23,754
Difference in 1893-94 (12 months) ... { More ...	60,554		3,918	62,986
Difference in 1893-94 (12 months) ... { Less ...	...	1,486	...	...

(*b*) *Fuel.*

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	C. ft.	C. ft.	C. ft.	C. ft.
1893-94	68,395	657	...	69,052
1892-93 (15 months) ...	118,995	12,508	...	131,503
1892-93 (12 ditto average) ...	95,196	10,006		105,202
1891-92	238,759	...	8,670	247,429
Difference in 1893-94 (12 months) ... { More ...	...	...	...	...
Difference in 1893-94 (12 months) ... { Less ..	26,801	9,349	...	36,150

(*c*) *Bamboos.*

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	Nos.	Nos.	Nos.	Nos.
1893-94	2,165	...	6,419	8,584
1892-93 (15 months) ...	200	...	4,482	4,682
1892-93 (12 ditto average) ...	160	...	3,586	3,746
1891-92	57	...	9,019	9,076
Difference in 1893-94 (12 months) ... { More ...	2,005	...	...	4,838
Difference in 1893-94 (12 months) ... { Less ...	...	...	2,833	...

In timber the outturn increased by 62,986 cubic feet, representing the outturn of the thinnings in the Chittagong Division amounting to 58,926 cubic feet (carried out during the previous year, but brought on to stock only in the year under report), and 4,060 cubic feet more material utilized on departmental buildings.

As regards fuel it fell by 36,150 cubic feet; a decrease of 26,801 cubic feet from the reserves represents less deliveries of firewood by the Darjeeling Division to the Commissariat at Jelapahar.

The removals of bamboos and other minor produce were altogether insignificant.

The policy of discouraging departmental agency advocated by Mr. Dansey and approved by the Local Government as well as by the Government of India may, therefore, from the above figures be considered to have been fully adopted during the year, though, in the opinion of the present Conservator, it still remains to be seen whether the policy will prove financially a success.

(2) *Removals of produce by purchasers.*

Removal of timber by purchasers.

82. The following shows the removals by purchasers:—

(*a*) *Timber.*

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	C. ft.	C. ft.	C. ft.	C. ft.
1893-94	3,763,135	346,088	512,350	4,621,573
1892-93 (15 months) ...	7,258,176	271,698	489,899	8,019,773
1892-93 (12 months average) ...	5,806,541	217,358	391,919	6,415,818
1891-92	6,389,699	349,655	465,536	7,204,890
Difference in 1893-94 (12 months) ... { More ...	...	128,730	120,431	...
Difference in 1893-94 (12 months) ... { Less ...	2,043,406	...	...	1,794,245

The above figures exclude, as was done last year, the unreliable estimate of the Puri protected forests of 160,000 cubic feet. The outturn through the agency of purchasers has decreased by 1,794,245 cubic feet.

Details by divisions.

83. The following statement compares the year's outturn with that of the last two years, division by division :—

Division.	Reserved Forests.				Protected Forests.			
	1893-94.	1892-93. (15 months).	1892-93. (12 months' average).	1891-92.	1893-94.	1892-93. (15 months).	1892-93. (12 months' average).	1891-92.
1	2	3	4	5	6	7	8	9
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Darjeeling	111,109	174,656	139,725	111,421	.....	.....	.....	.....
Tista	49,977	85,024	68,499	188,174	.....	.....	.....	.....
Kurseong	97,409	98,363	78,691	90,920	.....	.....	.....	.....
Jalpaiguri	153,524	122,493	97,994	45,072	.....	.....	.....	.....
Buxa	51,838	36,733	29,386	34,680	.....	.....	.....	.....
Direction	3,759	3,524	2,819	1,902	3,840	.....	.....	.....
Palamau	.....	.....	.....	.....	.....	.....	.....	.....
Singhbhum	89,749	187,917	150,334	547,415	12,052	5,284	4,227	.....
Angul	43,392	31,106	24,885	9,150	.....	.....	.....	.....
Puri	4,936	4,770	3,816	3,977	121	1,413	1,130	2,875
Sundarbans	3,157,442	6,512,990	5,210,392	5,356,968	329,475	265,001	212,001	346,780
Chittagong	.....	.....	.....	.....	.....	.....	.....	.....
Kusi Drift	.....	.....	.....	.....	.....	.....	.....	.....
Total ...	3,763,135	7,258,176	5,806,541	6,389,699	346,068	271,698	217,358	349,655

Division.	Unclassed Forests.				Total.				In 1893-94.	
	1893-94.	1892-93. (15 months.)	1892-93. (12 months' average.)	1891-92.	1893-94.	1892-93. (15 months.)	1892-93. (12 months' average.)	1891-92.	More.	Less.
	10	11	12	13	14	15	16	17	18	19
	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Darjeeling	.....	.....	.....	.....	111,109	174,656	139,725	111,421	.....	28,616
Tista	.....	.....	.....	.....	49,977	85,024	68,499	188,174	... ..	18,522
Kurseong	.....	.....	.....	.....	97,409	98,363	78,691	90,920	18,718	.....
Jalpaiguri	.....	.....	.....	.....	153,524	122,493	97,994	45,072	55,530	.....
Buxa	.....	.....	.....	.....	51,838	36,733	29,386	34,680	22,452	.....
Direction	.....	.....	.....	.....	7,599	3,524	2,819	1,902	4,780	.....
Palamau	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Singhbhum	.....	.....	.....	114,905	102,401	193,201	154,561	662,320	.....	52,160
Angul	.....	.....	.....	.....	43,392	31,106	24,885	9,150	18,507	.....
Puri	.....	.....	.....	.....	5,057	6,183	4,946	6,852	111	.....
Sundarbans	.....	15,845	12,676	98,472	3,486,917	6,793,836	5,435,069	5,802,240	.....	1,948,152
Chittagong	512,350	474,039	379,231	252,159	512,350	474,039	379,231	252,159	133,119	.....
Kusi Drift	.....	15	12	.....	.....	15	12	.....	.....	12
Total ...	512,350	489,899	391,919	465,536	4,621,573	8,019,773	6,415,818	7,204,890	.. ...	1,794,245

From this statement it will be observed that while the Kurseong, Jalpaiguri, Buxa, Direction, Angul, Puri and Chittagong Divisions all show a larger yield, aggregating 253,217 cubic feet in the Jalpaiguri and Chittagong Divisions, amounting to as much as 55,530 and 133,119 cubic feet respectively, the Darjeeling, Tista, Singhbhum and Sundarbans Divisions are behind last year's figures by as much as 2,047,450 cubic feet, the latter alone contributing to this smaller outturn to the extent of 1,948,152 cubic feet.

The reasons for these differences are as follows:—

In Kurseong restricted fellings of sound sál trees caused a less outturn in logs, while thinnings and clearances of boundary lines gave more small timber.

In Jalpaiguri, the closing of the sál forests in Nipal and a more regular system of working is said to have encouraged a larger demand, while the requirements of Kuch Bihar led to a similar result in Buxa.

As regards Angul no explanation has been afforded.

In Chittagong heavy rain in March facilitated transport from the upper reaches of the river, especially the Kurnafully.

The Darjeeling Divisional Officer has given no reason for the smaller outturn in that division.

In Tista, the suspension of fellings of green sál trees for the general public operated to reduce the total outturn; while in Singhbhum the decrease is said to have been due to the introduction of a log rate in place of a scantling rate which caused the traders to seek their timber elsewhere.

In the Sundarbans 236,499 cubic feet removed from the leased lands do not appear in the returns of this year, and, coupled with the fact that 1893-94 was the first year of the introduction of a new system under which the freedom hitherto enjoyed by the wood-cutters in respect to the cutting of timber trees from any portion of the reserved forests was

restricted to the extent of obliging them to repair to certain prescribed localities, sufficiently explains the falling off in the outturn; the latter had also the effect of stimulating export from the leased lands north of the Khulna Circle.

(b) Fuel.

Removal of fuel by purchasers.

84. The total outturn of the year in fuel removed by purchasers, omitting the estimate for the Puri protected forests, was as follows:—

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	C. ft.	C. ft.	C. ft.	C. ft.
1893-94	10,925,629	2,151,682	160,150	13,237,461
1892-93 (15 months) ...	11,923,503	2,032,391	605,460	14,561,354
1892-93 (12 ditto) ...	9,538,802	1,625,913	484,368	11,649,083
1891-92	9,497,568	3,884,870	755,917	14,138,355
Difference in 1892-93 (12 months) ... { More ...	1,386,827	525,769	.....	1,588,378
Difference in 1892-93 (12 months) ... { Less ...	.....	.....	324,218	.....

Thus the total outturn of fuel under this head was less than the outturn of the previous 15 months by 1,323,893 cubic feet, but exceeded the average of the 12 months by 1,588,378 cubic feet.

Details by divisions.

85. The following statement compares the outturn with that of the two preceding years division by division:—

Division.	Reserved Forests.				Protected Forests.			
	1893-94.	1892-93. (15 months.)	1892-93. (12 months' average.)	1891-92.	1893-94.	1892-93. (15 months.)	1892-93. (12 months' average.)	1891-92.
1	2	3	4	5	6	7	8	9
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Darjeeling	689,603	839,734	671,787	577,183	...	...	...	...
Tista	299,627	284,414	227,531	83,181	...	...	...	...
Kurseong	302,267	290,056	232,045	330,990	...	...	...	...
Jalpaiguri ...	1,110,308	1,905,854	1,524,683	563,081	...	...	...	...
Buxa	10,325	8,424	6,739	18,702	...	...	...	...
Direction	22,246	18,826	15,061	19,357	...	...	...	...
Palamau	...	...	...	...	...	...	...	...
Singhbhum ...	40,936	105,754	83,003	82,954	14,116	54,034	43,227	...
Angul	418	1,153	922	292	...	...	...	...
Puri	98,040	86,896	69,517	67,504	3,376	9,960	7,968	23,782
Sundarbans ...	8,351,859	8,384,392	6,707,514	7,754,264	2,134,190	1,968,397	1,574,718	3,861,088
Chittagong ...	...	...	...	...	...	...	...	...
Total ...	10,925,629	11,923,503	9,538,802	9,497,568	2,151,682	2,032,391	1,625,913	3,884,870

Division.	Unclassed Forests.				Total.				In 1893-94.	
	1893-94.	1892-93 (15 months.)	1892-93 (12 months' average.)	1891-92.	1893-94.	1892-93. (15 months.)	1892-93. (12 months' average.)	1891-92.	More.	Less.
	10	11	12	13	14	15	16	17	18	19
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Darjeeling	...	...	...	...	689,603	839,734	671,787	577,183	17,816	...
Tista	...	...	...	...	299,627	284,414	227,531	83,181	72,096	...
Kurseong	...	...	...	...	302,267	290,056	232,045	330,990	70,222	...
Jalpaiguri	...	...	...	...	1,110,308	1,905,854	1,524,683	563,081	...	414,375
Buxa	...	...	...	...	10,325	8,424	6,739	18,702	3,586	...
Direction	...	...	...	...	22,246	18,826	15,061	19,357	7,185	...
Palamau	...	...	...	...	...	...	...	...	...	...
Singhbhum	...	...	...	30,110	55,052	157,788	126,230	122,064	...	71,178
Angul	...	...	...	...	418	1,153	922	292	...	504
Puri	...	...	...	...	101,416	96,856	77,485	91,286	23,931	...
Sundarbans	...	468,353	369,882	541,086	10,485,049	10,815,142	8,652,114	12,156,438	1,833,935	...
Chittagong	160,150	148,107	114,486	176,721	160,150	148,107	114,486	175,721	45,664	...
Total ...	160,150	605,460	484,368	755,917	13,237,461	14,561,354	11,649,083	14,138,355	1,588,378	...

All divisions except Jalpaiguri, Singhbhum, and Angul show an increased outturn.

In Tista the increase of 72,096 cubic feet is ascribed partly to the greater demand in Kalimpong owing to the villages not being allowed to sell from villages lands, but chiefly to the heavy floods of last year, which brought down an exceptionally large amount of drift, which was disposed of to planters, who otherwise would not have obtained their firewood from the forests.

This explanation, however, throws a doubt on the accuracy of the returns from this division which, following a practice that cannot now be changed, would seem to include produce obtained from areas not included therein.

In Jalpaiguri there was also a larger outturn of drift of over 83,000 cubic feet, but the main difference lies in the change of the principle adopted in calculating the volume; hitherto the estimates have been framed on the assumption that each coolie removed one maund daily during the cold season, while now it is considered that three seers is an ample allowance.

This change alone accounts for over 15 lakhs of cubic feet; otherwise an increased demand for tea gardens, to some extent counterbalanced by a falling off in the requirements of the Bengal Duars Railway, and the larger drift receipts, would have resulted in an outturn in excess of past years.

In Singhbhum also defective estimation operated adversely, while a large stock in the market at Chakardharpur, which swelled the yield of 1892-93, lessened the demand in 1893-94.

In Puri, thinnings added some 23,000 cubic feet to the year's outturn.

In the Sundarbans a large demand for goran firewood in Calcutta, coupled with other favourable conditions, led to an increased outturn of over 22 lakhs of cubic feet, which was, however, reduced to 18 lakhs, owing to last year's figures containing the yield of leased lands

(*c*) Bamboos.

86. The total outturn of bamboos removed by purchasers was as follows, after excluding the unreliable estimates of the Puri protected forests of 4,000,000 previously alluded to:—

Bamboos removed by purchasers.

Year.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5
	Nos.	Nos.	Nos.	Nos.
1893-94	6,319,527	225	10,762,872	17,082,624
1892-93 (15 months) ...	6,977,048	13,870	10,683,000	17,673,918
1892-93 (12 ditto average) ...	5,581,638	11,096	8,546,400	14,139,134
1891-92	5,730,409	154,441	10,330,818	16,215,668
Difference in 1893-94 (12 months) ... More ...	737,889	..	2,216,472	2,943,490
Difference in 1893-94 (12 months) ... Less ...	...	10,871	...	...

This shows a smaller outturn of the year under report compared with the previous year's figures for 15 months of 591,294 merely, and if the periods be equalised, the result is a satisfactory increase of 2,943,490. As regards value, the year's figures were in excess of those of the actuals for the same period of last year by Rs. 2,574.

Removals by divisions.

87. The divisional details are:—

Division.	Reserved Forests.				Protected Forests.			
	1893-94.	1892-93. (15 months.)	1892-93. Average for 12 months.	1891-92.	1893-94.	1892-93. (15 months.)	1892-93. Average for 12 months.	1891-92.
1	2	3	4	5	6	7	8	9
	No.	No.	No.	No.	No.	No.	No.	No.
Darjeeling ...	412,856	454,874	363,899	501,541	.....	.....	.....	.....
Tista ...	155,415	176,867	141,494	108,594	.....	.....	.....	.....
Kurseong ...	46,364	42,075	33,660	48,207	.....	.....	.....	.....
Jalpaiguri ...	7,600	3,600	2,880	1,350	.....	.....	.....	.....
Buxa ...	1,150	1,509	1,207	250	.....	.....	.....	.....
Direction ...	56,712	104,301	83,441	82,200	.....	.....	.....	.....
Palamau ...	380,982	210,845	168,676	396,132	.....	.....	.....	.....
Singhbhum ...	55,675	79,561	63,649	89,641	25	.....	.....	.....
Angul ...	926,978	476,073	380,858	522,362	.....	.....	.....	.....
Puri ...	179,136	219,450	175,567	487,834	200	13,870	11,096	154,441
Sundarbans ...	.....	.....	.....	.....	.....	.....	.....	.....
Chittagong ...	4,116,659	5,907,894	4,166,307	3,497,299	.....	.....	.....	.....
Total ...	6,319,527	6,977,048	5,581,638	5,730,409	225	13,870	11,096	154,441

Division.	Unclassed Forests.				Total.				In 1893-94.	
	1893-94.	1892-93. (15 months.)	1892-93. Average for 12 months.	1891-92.	1893-94.	1892-93. (15 months.)	1892-93. Average for 12 months.	1891-92.	More.	Less.
	10	11	12	13	14	15	16	17	18	19
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Darjeeling ...	.....	.....	.....	.....	412,854	454,874	363,899	501,541	48,957	...
Tista ...	.....	.....	.....	.....	155,413	176,867	141,494	108,594	13,921	...
Kurseong ...	.....	.....	.....	.....	46,364	42,075	33,660	43,207	12,704	...
Jalpaiguri ...	.....	.....	.....	.....	7,400	3,600	2,880	1,350	4,720	...
Buxa ...	.....	.....	.....	.....	1,150	1,509	1,207	250	...	57
Direction ...	.....	.....	.....	.....	56,712	104,301	83,441	82,200	...	26,729
Palamau ...	.....	.....	.....	.....	360,982	210,845	168,676	396,132	192,306	...
Singhbhum ...	.....	.....	.....	100	55,700	79,561	63,649	89,741	...	7,949
Angul ...	.....	.....	.....	.....	926,978	476,073	380,858	522,362	546,120	...
Puri ...	.....	.....	.....	.....	179,336	233,329	186,663	642,275	...	7,327
Sundarbans ...	.....	.....	.....	.....	.....	...	...	...	...	...
Chittagong ...	10,762,872	10,683,000	8,546,400	10,330,718	14,879,531	15,890,884	12,712,707	13,828,016	2,166,824	...
Total ...	10,762,872	10,683,000	8,546,400	10,330,818	17,082,624	17,673,918	14,139,134	16,215,668	2,943,490	...

The results of the year compared with the averages for 1892-93 were more favourable in the Darjeeling, Tista, Kurseong, Jalpaiguri, Palamau and Angul Divisions, and especially so in Chittagong; Buxa, Direction, Singhbhum and Puri showed less activity.

In Chittagong alone the increased outturn amounted to 74 per cent. of the total increase of the circle; Angul and Palamau both doubled the previous year's figures; in other divisions the increases were insignificant. Actual figures for the 1892-93 period, however, considerably reduce these increases, a large number of bamboos brought down in Chittagong having drifted out to sea during the heavy rains of March.

(*d*) Minor produce.

Removals of other minor produce.

88. The total value of the miscellaneous minor produce, omitting bamboos, removed from the forests by purchasers amounted to Rs. 2,43,718 against Rs. 2,64,334 during the previous 15 months. This sum includes:—

Value of privileged removals not paid for:—

		Rs.	Rs.
Tista Division: grazing		630	
Puri ,, in general (unreliable estimate) ...		1,25,581	1,26,211
Value of estimated removals from Hill Tippera in 1892-93 credited to the Maharaja in 1893-94 ...			1,769
Total ...			1,27,980

by which amount it should be reduced for purposes of comparison with the receipts of last year. If this is done the following is the result:—

	Rs.
Receipts for 1893-94	1,15,738
,, for 1892-93 (average for 12 months)	95,793

which shows a satisfactory increase of Rs. 19,945. This is the increase shown by comparing the actuals of 1893-94 with the average of 12 out of the 15 months of 1892-93. By taking the actuals of the 12 months, 1st July 1892 to 30th June 1893, the result is an increase of Rs. 24,374, which is still more gratifying.

As explained in paragraph 76, considerable development in this direction is anticipated. A statement has therefore this year been introduced into the report which it is hoped to continue in the future, showing the value of the more important articles of commerce removed, while special remarks on each are also given.

Produce.	1893-94.				1892-93.								1891-92.			
					Fifteen months.				Average for 12 months.							
	Reserved forests.	Protected forests.	Unclassed forests.	Total.	Reserved forests.	Protected forests.	Unclassed forests.	Total.	Reserved forests.	Protected forests.	Unclassed forests.	Total.	Reserved forests.	Protected forests.	Unclassed forests.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Grazing	7,722	5,041	...	12,763	7,021	1,158	...	8,179	5,617	926	...	6,543	6,620	268	...	6,888
Fodder grasses	2,160	...	...	2,160	2,524	...	...	2,524	2,019	...	...	2,019	1,938	...	...	1,938
Sabai grass	2,359	355	...	2,714												
Golpattta and Hantal	50,687	3,465	...	63,152												
Honey and wax	4,792	4,869	...	9,661	85,708	12,857	10,474	1,09,039	68,566	10,286	8,379	87,231	70,552	10,880	8,315	89,747
Mica	8,024	5	...	8,029												
Other produce	7,065	4,136	6,058	17,259												
Total ...	91,809	17,871	6,058	1,15,738	95,253	14,015	10,474	1,19,742	76,202	11,212	8,379	95,793	79,130	11,148	8,315	98,573

The figures for 1893-94 exclude Rs. 1,088 credited in Form No. 61, receipts from leased lands in the Sundarbans, and include Rs. 4,752 credited under R II and R II (g) in that form.

Honey and wax.

89. The revenue from honey and wax was not separately abstracted last year; it was, however, Rs. 12,873 for the 15 months, and consequently there was a decrease of Rs. 3,212 during the year under report, in which the sum of Rs. 9,661 only was collected. This article is entirely a produce of the reserved and protected forests of the Sundarbans in fairly equal quantities; though the decline is considerable, no reason has been assigned therefor.

Hitherto the returns for honey and wax have not been kept separate, which will be avoided in future. It may, however, be here remarked that there seems some inconsistency in the price charged, viz., Re. 1 per maund for either honey or wax. While the market value is only Rs. 5 to Rs. 6 per maund for honey and Rs. 25 to Rs. 50 for wax, the cost of collection differs but little.

Sabai grass.

90. Last year sabai grass was included among "fibres," hence the removal of this important article cannot be separated in the returns of that year. The chief areas producing this particular kind of grass, at present worked, are the reserved forests of the Singhbhum Division which, in 1892-93, were disposed of on tender for Rs. 1,750. The great importance of this article in the paper industry of Calcutta attracted the attention of the Conservator shortly after the close of the year, and it was with ease that the amount of last year's lease was raised almost cent. per cent. to Rs. 3,000. And when one realizes the large amount of this grass that is used in the manufacture of paper and the high prices it commands at Calcutta, there is nothing astonishing in this increase; indeed, the astonishing part seems to be that more was not hitherto obtained for it. From enquiries made by the Conservator personally, the requirements of three of the five Calcutta Paper Mills alone amount to no less than 3,10,000 maunds, which, at the prevailing rate of Re. 1-7 per maund, produces a gross income of Rs. 4,45,000, which is more than the total receipts of the circle from timber or from all other produce pur together, and, allowing for a total expenditure on collection and delivery of Re. 1-2 per maund at the outside, means a net income of Rs. 97,000 to some one. The whole of this supply does not, however, as yet come from departmental areas.

Mica.

91. Mica, too, the talc of commerce, is a product of great importance, and is largely used in connection with electricity, &c., &c. In the returns it has hitherto been associated with stones, laterite, limestone, &c., under the class "minerals," and has not occupied the prominent place its importance as a source of revenue and as an article of commerce demands. The Hazaribagh mica mines, chiefly situated in the reserved and protected forests of that district, form the principal source of supply for the export trade. In 1890 the mines of the Hazaribagh district employed 11,163 persons during the working season, or an average of 1,819 persons daily, and gave an outturn of 4,020 maunds valued at Rs. 1,07,146. The majority of the mines are worked by Messrs. Christian and Company, under leases granted by the Deputy Commissioner of Hazaribagh, at an aggregate rental credited to the Forest Department of Rs. 9,692. They cover a total area of 22·57 acres, the total output for the year under report being estimated at 2,710 maunds, the revenue realized amounting to Rs. 8,029.

(3) Free grants of forest produce.

Free grants.

92. The quantity of forest produce taken away during the year under "free grants" was, after excluding from both years' outturn the unreliable estimates of material utilized by priviledged persons, as follows:—

Forests.	Timber.		Fuel.		Total wood.		Bamboos.		Minor forest produce.	
	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.
1	2	3	4	5	6	7	8	9	10	11
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	No.	No.	Rs.	Rs.
Reserved	13,276	38,305	13,377	2,579	26,653	40,884	800		889	1,879
Protected	4,638	8,766	...	40	4,638	8,806	2,500	3,000	5,691	1,559
Unclassed	...	...	...	...	...	..	7,000	.	3	...
Total ...	17,914	47,071	13,377	2,619	31,291	49,690	10,300	3,000	6,583	3,438

Thus the free grants in wood have decreased during the year by 18,399 cubic feet, while 7,300 bamboos more were given away. The value of other minor produce removed for which no payment was asked almost doubled itself and rose by Rs. 3,145. The heaviest item was the grant to the East Coast Railway of 1,063,269 cubic feet of stone, laterite, &c., valued at Rs. 5,691, of which Rs. 3,641 have, however, not yet been sanctioned by the Government of India.

Apparently free grants have hitherto been made in a general way, and once sanctioned have been allowed to run on for years without question. A careful audit of all future removals under this head will now be maintained in the Conservator's office.

No produce was removed by right-holders.

CHAPTER IV.—FINANCIAL RESULTS.

Financial results.

93. The financial results of the year were:—

	Rs.
Receipts	7,73,096
Charges	3,98,389
Surplus ...	3,74,707

and compare with those of the preceding five years as follows:—

Year.	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1888-89	6,76,907	3,75,471	3,01,436
1889-90	7,68,718	3,90,265	3,78,453
1890-91	7,27,392	4,14,005	3,13,387
1891-92	7,89,553	4,22,930	3,66,623
1892-93 Financial	7,44,882	3,81,608	3,63,274
1892-93 Forest (1st July 1892 to 30th June 1893) ...	7,70,817	3,90,426	3,80,391
1893-94 Financial, ...	8,01,611	4,04,043	3,97,568
1893-94 Forest	7,73,096	3,98,389	3,74,707

It is satisfactory to record that the gross revenue as well as the surplus of the financial year was the highest on record since the formation of the Department, while the charges were fairly normal.

The gross revenue of the period under report was greater than that of the forest year 1892-93 by Rs. 2,279; the surplus was less by Rs. 5,684, while the expenditure increased by Rs. 7,963. The year, therefore, compares financially most favourably with its predecessors.

The proportion of surplus to gross revenue was 48·46 per cent. as compared with 49·34 per cent. in 1892-93 (forest year).

Differences in revenue from main sources.

94. The following table shows the difference in the revenue realized from the main sources:—

SOURCES OF REVENUE.

HEADS.	1893-94.		1892-93.		Financial year.		Forest year.	
	Financial year.	Forest year.	Financial year.	Forest year (1st July 1892 to 30th June 1893).	Increase.	Decrease.	Increase.	Decrease.
1	2	3	4	5	6	7	8	9
Receipts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Timber	3,76,195	3,52,344	3,87,415	3,90,061	.....	11,220	.....	37,717
Fuel	2,35,206	2,17,787	1,75,206	1,93,577	60,000	.....	24,180	.....
Bamboos	46,451	48,526	44,448	45,508	2,003	.....	2,958	.....
Grazing and fodder	12 324	14,923	8,411	8,639	3,913	.....	6,284	.....
Minor produce	93,208	1,01,911	79,274	83,813	13,934	.....	18,098	.....
Drift and confiscated produce ...	12,704	12,320	10,854	11,204	1,850	... ..	1,032	... .
Miscellaneous	25,433	25,309	39,274	37,865	.....	13,841	.....	12,556
Total ...	8,01,611	7,73,096	7,44,882	7,70,817	56,729	.....	2,279	. .

During the year there has, therefore, been a satisfactory improvement under most heads. The receipts from timber and miscellaneous items have, however, declined by Rs. 37,717 and Rs. 12,556 respectively, the former, for the reasons given under Chapter III, paragraph 83, in regard to outturn, and the latter, owing to the receipts of 1892-93 including over Rs. 4,000 realized from the sale of elephants, and to the acceptance of less compensation in cases under section 67 of the Forest Act in the Sunderbans Division by Rs. 3,337. A further decline of Rs. 3,279 in that division has not been explained.

Comparisons of expenditure.

95. The following statement shows the expenditure compared with that of the previous year:—

BUDGET HEADS.	1893-94.		1892-93.		Financial year.		Forest year.	
	Financial year.	Forest year.	Financial year.	Forest year (1st July 1892 to 30th June 1893).	Increase.	Decrease.	Increase.	Decrease.
1	2	3	4	5	6	7	8	9
A.—Conservancy and Works.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the forests by Government agency.	6,970	6,430	10,602	8,637	.....	3,632	.....	2,207
II.—Timber and other produce removed from the forests by consumers and purchasers.	54,024	53,148	46,636	50,459	8,288	.....	2,689	.....
III.—Drift and waif wood and confiscated forest produce.	2,137	2,211	2,826	2,670	.....	689	.....	459
VI.—Live and dead-stock	11,792	8,122	17,839	20,871	... ..	8,047	.....	12,749
VII.—Communications and buildings	40,665	48,118	30,441	36,135	19,224	.....	12,013	.....
VIII.—Organization, improvement and extension of forests.	22,173	24,005	22,344	22,773	829	.....	1,232	.....
IX.—Miscellaneous	1,805	2,546	2,660	2,298	.....	855	258	.....
Total A.—Conservancy and Works ...	1,50,466	1,44,610	1,33,348	1,43,833	17,118	.....	777	.....
B.—Establishments.								
I.—Salaries	2,10,193	2,13 313	2,07,951	2,04,102	2,242	.....	8,811	.....
II.—Travelling allowances	33,988	30,920	31,091	32,947	2,897	.....	.....	2,027
III.—Contingencies	9,396	9,546	9,218	9,144	178	.. ...	402	.....
Total B.—Establishment ...	2,53,577	2,53,779	2,48,260	2,46,593	5,317	.....	7,186	.....
Grand Total, Expenditure ...	4,04,043	3,98,389	3,81,608	3,90,426	22,435	.....	7,963	.....

The only marked differences under A—Conservancy and Works were a larger expenditure of Rs. 12,013 under Communications and Buildings balanced by a corresponding decrease of Rs. 12,749 under dead stock; the former consequent on the erection of the new forest office for the Sundarbans Division at Khulna, and the latter due to the purchase of three steam-cutters for that Division in 1892-93.

In regard to communications, the expenditure was less by Rs. 3,350 than in the previous year.

Under B—Establishments there was an increase of Rs. 8,811, due to the payment of exchange compensation allowance which was first sanctioned from April 1893, while travelling allowances came to Rs. 2,027 less.

96. The following shows the financial condition of each division at the close of both the financial and the forest year compared with that of the year previous:—

Financial aspect by divisions.

Divisions.	Receipts.				Charges.				Surplus.				Deficit.			
	1893-94.		1892-93.		1893-94.		1892-93.		1893-94.		1892-93.		1893-94.		1892-93.	
	Financial year.	Forest year.	Financial year.	Forest year.	Financial year.	Forest year.	Financial year.	Forest year.	Financial year.	Forest year.	Financial year.	Forest year.	Financial year.	Forest year.	Financial year.	Forest year.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Darjeeling	60,497	56,274	68,384	69,529	55,043	51,626	56,942	56,606	5,444	4,648	17,442	12,923	.....	.....	.....	.....
Tista	13,643	14,734	19,905	18,644	23,369	23,144	23,632	23,832	.....	.....	.....	.....	9,726	8,410	3,727	5,188
Kurseong	18,406	18,198	19,706	21,404	21,719	23,407	21,039	21,345	.....	.....	.....	59	3,313	5,209	1,333	.....
Jalpaiguri	40,183	42,748	29,189	29,449	25,705	25,623	29,649	26,779	14,480	17,125	.....	2,661	.....	.....	460	.....
Buxa	10,185	11,785	12,556	11,590	23,165	24,211	23,295	22,185	.....	.....	.....	.....	12,980	12,426	10,739	10,595
Direction	13,636	13,389	16,176	17,196	42,901	43,209	40,324	39,302	.....	.....	.....	.....	29,265	29,820	24,148	22,106
Palamau	2,318	2,398	1,134	1,567	9,637	8,220	10,808	10,879	.....	.....	.....	.....	7,319	5,822	9,674	9,312
Singhbhum	28,633	24,347	35,354	40,425	43,115	43,416	33,791	35,675	.....	.....	2,563	4,750	14,482	19,068	.....	.....
Angul	4,741	4,083	2,771	2,910	12,176	13,245	9,941	9,898	.....	.....	.....	.....	7,435	8,562	7,170	6,782
Puri	20,953	18,672	15,528	19,442	13,795	14,389	13,294	13,271	7,158	4,283	2,234	6,171	.....	.....	.....	.....
Sundarbans	4,91,163	4,68,152	4,35,368	4,47,151	1,06,156	99,877	99,987	97,539	3,85,007	3,68,275	3,45,381	3,49,612	.....	.....	.....	.....
Chittagong	97,261	97,716	88,798	91,505	27,362	27,933	35,906	33,315	69,899	69,783	52,892	58,190	.....	.....	.....	.....
Kusi Drift	.....	.....	13	8	.....	.....	.....	.....	.....	.....	13	8	.....	.....	.....	.....
Total ...	8,91,611	7,73,006	7,44,882	7,70,817	4,04,043	3,98,380	3,61,606	3,90,426	4,82,088	4,64,114	4,20,525	4,34,374	84,520	89,407	57,251	53,983
Net surplus ...	.....	.....	.....	.....	.....	.....	.....	.....	3,97,568	3,74,707	3,63,274	3,80,391	.....	.....	.....	.....

Note.—The figures for the Forest year are those for the period from 1st July to 30th June.

It will be observed that the Sundarbans and Chittagong Divisions have mainly contributed to the financial success of the year and the surplus of the circle. The Tista, Kurseong, Buxa, Direction, Palamau, Singhbhum and Angul Divisions have been worked at a loss, while Darjeeling and Puri scarcely did more than maintain their independence, adding together no more than Rs. 8,931 to the general surplus.

It is creditable to Mr. Haines that he has succeeded in bringing the Jalpaiguri Division into prominence, raising its position from one of depression in the financial year 1892-93 to one of some importance in 1893-94, realising a surplus of Rs. 17,125.

The financial position of the Sundarbans and Chittagong Divisions is assured.

The non-paying divisions, it must be observed with regret, are all, with the exception of Palamau, which has reduced its deficit by Rs. 3,490, in a worse condition than in 1892-93.

Differences by divisions.

97. The following explains the chief differences of the year division by division :—

In Darjeeling the revenue has suffered to the extent of Rs. 14,038 in less disposals of timber and fuel, already alluded to under outturn, and while the total expenditure has slightly decreased, the surplus has fallen in an unsatisfactory manner from Rs. 12,923 in 1892-93 to Rs. 4,648 during the year under report. This is much to be regretted, and endeavours must be made to bring the financial condition of this division more into agreement with preceding years.

In Tista and Kurseong the suspension of sales of green sál trees mentioned in paragraph 85 has operated to reduce the revenue from timber, and thus to increase the annual deficit.

Jalpaiguri has already been alluded to; while the charges have remained almost unchanged, the receipts from timber and grazing have increased by Rs. 13,959 consequent on the more brisk demand also referred to in the above-noted paragraph.

In Buxa the deficit has risen owing to slightly higher expenditure.

In the Direction Division the receipts have somewhat declined, while the expenditure has also exceeded that of last year, thus the deficit is greater by Rs. 7,714.

In Palamau and Angul the revenue, insignificant as it is, has more than maintained itself, while the charges have been reduced in the former and added to in the latter; the results therefore are better in Palamau by Rs. 3,490 and worse in Angul by Rs. 1,780.

In Puri likewise comparatively stationary receipts and expenditure have caused a fall in the surplus of Rs. 1,888.

In Singhbhum, as in Darjeeling, the year's transactions have been singularly disappointing; while the revenue fell to the extent of Rs. 16,078, the expenditure rose by Rs. 7,740, and the result of the year was the conversion of a surplus of Rs. 4,750 in 1892-93 into a deficit of Rs. 19,068, or a retrogression to the extent of Rs. 23,818. This unsatisfactory state of affairs was due to inability to dispose of the produce of the sanctioned timber fellings at the new rate and to a larger number than usual of superior officers being attached to the division.

In the Sundarbans the charges were somewhat higher owing partly to the building of an office, but the receipts being more favourable under firewood and minor produce by Rs. 36,783 and Rs. 15,600 respectively, though less by Rs 24,334 from timber owing to causes already explained under outturn, the surplus of this division was increased by Rs. 18,663 to the large amount of Rs. 3,68,275, being only Rs 6,432 less than the surplus of the circle.

In Chittagong, in consequence of additional receipts from timber of Rs. 7,174, attributable to opportune and heavy rain in March and a decline of Rs. 5,382 in expenditure, the surplus showed a satisfactory increase of Rs. 11,593. The Divisional Officer, however, doubts his ability to maintain these results, fearing additional expenditure on the extension of the area of the division; this should, however, lead to an improved financial condition.

Value of live and dead-stock (Forms Nos. 60A and 60B).

98. The difference in the value of timber and other produce and of live and dead-stock in hand at the commencement and at the close of the year was:—

	Timber, &c.	Live and dead-stock.
	Rs.	Rs.
Value on 1st July 1893	16,843	2,69,156
Ditto 30th June 1894	15,401	2,90,394
Difference ...	—1,442	+21,238
Net difference in favour of the year ...	.....	+19,796

Outstandings of revenue (Form No. 63).

99. The outstandings on account of revenue are as shown by the form insignificant; they have increased by Rs. 10 during the year, and amount to Rs. 366 only. There is, however, reason to believe that the audit of these transactions has not been very strict, and that the form does not depict quite truly the real state of affairs. For instance, in the Singhbhum Division it is now found that but little attention has been paid to the collection of the forest cess of Rs. 383-6-2 due yearly from certain villages bordering on the Chaibassa range, and that consequently at the end of the year under report no less than Rs. 1,103 accruing from 1887-88 was actually due the Department on this account. Again, in Puri there is in reality a similar outstanding of some Rs. 3,000 which has not yet been brought to account. Steps have already been taken not only to correct the irregularity as regards the accounts, but also to realise the amounts. Previously outstandings on account of revenue have not been commented on in the Annual Report.

Outstandings on account of Contractors and Disbursers (Form No. 64).

100. The outstandings on account of contractors and disbursers were:—

	Rs.
At the beginning of the year	7,013
Do. close ditto	9,686

Of this sum Rs. 8,836 were in the hands of subordinates of the Department, while only Rs. 850 were due from contractors.

Net results of the year's transactions.

101. The value of the year's transactions is as follows:—

	Rs.
Cash surplus (Form No. 61)	3,74,707
Add—	
Increased value of stock (Forms Nos. 60A and 60B) ...	19,796
Increase on outstanding revenue (Form No. 63) ...	10
	3,94,513
Deduct—	
Advances received for produce unsupplied ...	1,609
Total in favour of the year	3,92,904

CHAPTER V.—FOREST ADMINISTRATION.

Officers in charge.

102. The charge of the Circle was held as follows:—

Mr. E. G. Chester, Deputy Conservator, from 1st to 13th July 1893.
„ E. P. Dansey, Conservator, from 14th July 1893 to 22nd February 1894.
„ H. H. Davis, Deputy Conservator, from 23rd February to 7th April 1894.
„ A. E. Wild, Conservator, from 8th April 1894 to close of the year.

The different divisions were in charge of the undermentioned officers:—

Darjeeling	...	Mr. C. A. G. Lillingston, Deputy Conservator, from 1st July to 14th July 1893. Mr. E. G Chester, Deputy Conservator, from 15th July to 12th December 1893. Mr. C. A. G. Lillingston, Deputy Conservator, from 13th to 27th December 1893. Mr. H. H. Davis, Deputy Conservator, from 28th December 1893 onwards.
Tista	...	Mr. H. D. D. French, Deputy Conservator.
Kurseong	...	Mr. C. A. G. Lillingston, Deputy Conservator, from 1st to 17th July 1893. Mr. E. G. Chester, Deputy Conservator, from 18th July to 25th August 1893. Mr. E. E. Slane, Extra Assistant Conservator, from 26th August to 10th November 1893. Mr. W. M. Green, Deputy Conservator, from 11th November onwards.
Jalpaiguri	...	Mr. H. H. Haines, Officiating Deputy Conservator, from 1st to 23rd July 1893. Mr. C. C. Hatt, Assistant Conservator, from 24th July to 23rd October 1893. Mr. H. H. Haines, Officiating Deputy Conservator, from 24th October 1893 onwards.
Buxa	...	Mr. G. A. Richardson, Deputy Conservator.
Palamau	...	Mr. R. Quinnell, Extra Assistant Conservator, from 1st July to 31st October 1893. Babu Guru Das Chatterjee, Ranger, from 1st November 1893 onwards.
Singhbhum	...	Mr. H. H. Davis, Deputy Conservator, from 1st July to 19th December 1893. Mr. E. G. Chester, Deputy Conservator, from 20th December 1893 to 9th May 1894. Mr. W. H. Lovegrove, Assistant Conservator, from 10th May 1894 onwards.
Angul	...	Babu Kedar Nath Mozumdar, Extra Assistant Conservator.
Puri	...	„ Sridhar Chuckerbutty, ditto ditto.
Sundarbans	...	Mr. R. L. Heinig, Deputy Conservator.
Chittagong	...	Mr. J. Cave-Browne, Assistant Superintendent of Police, from 1st to 9th July 1893. Mr. W. H. Lovegrove, Assistant Conservator, from 10th July to 24th September 1893. Babu Jaga Mohun Bhattacharjee, Personal Assistant to the Commissioner, Chittagong Division, from 25th to 27th September 1893. Mr. J. Cave Browne, Assistant Superintendent of Police, from 28th September to 27th November 1893. Mr. C. S. Murray, C.I.E., Assistant Commissioner, from 8th to 19th November 1893. Mr. R Quinnell, Extra Assistant Conservator, from 20th November 1893 to 28th April 1894. Mr. F. Trafford, Assistant Conservator, from 29th April 1894 onwards.

The Hazaribagh forests were worked latterly by Babu Mukunda Chundra Bhuttacharjee, Ranger, under the direction of the Conservator.

Mr. C. A. G. Lillingston, Deputy Conservator, filled the Office of Personal Assistant to the Conservator from the 19th July to the 14th October 1893, and again from the 1st June 1894 to the close of the year.

Officers attached to Divisions.

103. The following officers were attached to Divisions for general duty:—

Darjeeling.—Mr. C. A. G. Lillingston, Deputy Conservator, from the 15th October to the 12th December 1893 and from 28th December 1893 to 31st May 1894 (on working plans).

Mr. C. C. Hatt, Assistant Conservator, from the 1st to the 14th July 1893.

Mr. W. F. Perree, Assistant Conservator, from 17th December 1893 onwards.

Direction.—Mr. C. C. Hatt, Assistant Conservator, from 27th October to 3rd November 1893.

Singhbhum.—Mr. W. H. Lovegrove, Assistant Conservator, from the 2nd January to the 9th May 1894.

Mr. E. P. Stebbing, Assistant Conservator, from 7th December 1893 onwards.

Mr. J. C. Mendes, Extra Assistant Conservator, from the 17th August 1893 to the 1st May 1894.

Sundarbans.—Mr. J. C. Mendes, Extra Assistant Conservator, from the 1st July to the 10th August 1893.

Mr. E. E. Slane, Extra Assistant Conservator, from the 17th November 1893 to the 5th April 1894, and again from the 29th June 1894 onwards.

Mr. A. H. Mee, Extra Assistant Conservator of Forests, throughout the year.

Mr. W. F. Perree and Mr. E. P. Stebbing joined the Department from Cooper's Hill as Assistant Conservators, 2nd grade, on the 1st December 1893.

Mr. C. C. Hatt, Assistant Conservator, was deputed on foreign service to the Mohrbhanj State from the 4th November 1893.

Mr. C. G. Rogers, Deputy Conservator, remained on deputation to the Forest School throughout the year.

It will thus be seen that during the year the Darjeeling Division was held by three different officers, Kurseong by four, Jalpaiguri and Palamau by two, Singhbhum by three, and Chittagong, again the most unfortunate in this respect, by no less than six.

These constant changes are detrimental to steady and earnest work.

Officers on leave.

104. The following officers of the Controlling Staff were on leave during the year:—

Mr. E. P. Dansey, Conservator, returned from three months' privilege leave on the 14th July 1893, and again proceeded on eight months' furlough on the 23rd February 1894.

Mr. F. B. Manson, Deputy Conservator, was absent on furlough throughout the year.

Mr. E. G. Chester, Deputy Conservator, was obliged by sickness to proceed on one year's furlough from the 10th May 1894.

Mr. H. H. Haines, Officiating Deputy Conservator, and Mr. W. H. Lovegrove, Assistant Conservator, were absent on three months' privilege leave, the former from the 24th July and the latter from the 25th September 1893.

Mr. F. Trafford, Assistant Conservator, obtained an extension of four months' leave on medical certificate and of six days without pay in continuation of the leave noted in the report of last year, and returned to duty on the 29th April 1894.

Mr. R. Quinnell and Mr. E. E. Slane, Extra Assistant Conservators, were both away on privilege leave, the former for three and the latter for two months and twenty-two days from the 29th and 6th April, respectively.

Mr. J. C. Mendes, Extra Assistant Conservator, was obliged to obtain one year's furlough from the 2nd May 1894 owing to fever contracted in Singhbhum which unfortunately resulted in his death on the 26th idem.

In addition to losing the services of officers through illness, others, to whom leave was not due, were from the same cause incapacitated from hard and rough work.

Thus, out of a Controlling Staff of 15 Deputy and Assistant Conservators and 7 Extra Assistant Conservators, 22 officers, by no means excessive, even when all are effective, one Extra Assistant Conservatorship was unfilled, one Deputy Conservator was away for the whole year and one Assistant for eleven months, while six others were absent for periods of two to three months; one death during the year has also again to be recorded.

Inadequacy of Controlling Staff.

105. It is apparent, therefore, that the Controlling Staff was seriously crippled and that the interests and work of the Department suffered in proportion. In this regard the remark made last year by Mr. Dansey may well be repeated: "This chronic state of ill-health in the case of a staff numerically weak has added considerably to the difficulties of administration."

Examinations of Officers.

106. The following officers passed the examinations named:—

Mr. F. Trafford, Assistant Conservator, Forest Law.

Mr. E. P. Stebbing, Assistant Conservator, Forest Law, also Procedure and Accounts.

Mr. A. H. Mee, Extra Assistant Conservator, Forest Law, also Procedure and Accounts.

Mr. Trafford obtaining 18 marks above the minimum in the written examination paper in Procedure and Accounts and four below in the oral was, however, held not to have passed in this subject by the Central Examination Committee, and representations in his behalf are under consideration.

Tours and inspections.

107. Officers were away from head-quarters as follows:—

(*a*) *Conservator.*

Mr. Chester ... 12 days in the Darjeeling and Tista Divisions.
„ Dansey ... 134 days in the Darjeeling, Tista, Kurseong, Jalpaiguri Singhbhum, and Sundarbans Divisions.
„ Wild ... 12 days in the Kurseong and Japaiguri Divisions.

During this time the following Divisional Offices were inspected:—Kurseong, Jalpaiguri, Singhbhum, Sundarbans, Puri, Tista and Darjeeling.

(*b*) *Divisional Officers.*

Darjeeling	...	Mr. Lillingston	...	8	210 days.
		„ Chester	...	85	
		„ Davis	...	117	
Tista	...	„ French	...		238 „
Kurseong	...	„ Slane	...	38	270 „
		„ Green	...	232	
Jalpaiguri	...	„ Haines	...	162	169 „
		„ Hatt	...	7	
*Buxa	...	„ Richardson	...		253 „
Palamau	...	Mr. Quinnell	...	32	222 „
		Babu Guru Dass Chatterjee	...	190	
Singhbhum	...	.....			180 „
Angul	...	Babu Kedar Nath Mozumdar		...	163 „
Puri	...	„ Sridhar Chuckerbutty		...	219 „
Sundarbans	...	Mr. Heinig	...	...	175 „
Chittagong	...	.....			208 „

Reorganization of subordinate establishments.

108. The proposals submitted in June 1891, in regard to the reorganization of the subordinate establishment, were, on a reference from the Government of India, remodelled in January last, but nothing has yet been accomplished in this direction. This is much to be regretted, as complaints are universally received not only as regards inadequacy, but also in respect to the prospects held out. There is no doubt that the delay in this regard is not only prejudicial to the welfare of the Department, but disheartening to the present staff, and acts to some extent in deterring good men from entering its ranks.

In instance of the urgency of action in this direction and of the inadequacy of the establishment, the following table is appended:—

Rate of pay.	Bengal.	North-Western Provinces and Oudh.	Central Provinces.	Panjab.	Burma
	Total area of forests on 30th June 1893 in square miles.				
	12,808	3,886	...	5,809	...
	Rangers employed.				
1	2	3	4	5	6
Rs.					
150 ...	...	1	...	...	3
120 ...	...	1	3	1	2
100 ...	...	3	2	1	3
80 ...	2	4	9	5	8
60 ...	7	7	10	10	14
50 ...	14	12	11	6	10
Total ...	23	28	35	23	40
Amount in Rs.	1,280	1,910	2,430	1,570	2,970

Efficiency of subordinate establishment.

109. There have been no serious complaints during the year, and the establishment so far as reported seems to have performed its duties on the whole fairly well.

The following subordinates are specially commended by their Divisional Officers:—

Ranger Makunda Chandra Bhattacharjee.	Ranger Mr. W. A. Pereira.
„ Kedar Nath Mitter.	Forester Nolini Kanta Banerjee.
„ Banka Behari De.	„ Hridoy Nath Mitter.

One forester was dismissed and two were reduced, 13 guards resigned, while the services of two others were dispensed with.

Forest School men.

110. The number of men that have passed out of the Dehra Dun Forest School into the Provincial Service from its start up to the present date has been 17. Of these five have resigned, one has retired, four have died, while seven are only now in the service:—

Extra Assistant Conservators	4
Rangers	3

Mr. R. G. Hannah, Ranger, joined from the school in April 1894.

There are at present no students at the school deputed by Government, and since under sections 28 and 29 of the Forest Department Code the Provincial Forest Service can only be entered through the Forest School, and as Ranger, there will be some difficulty in recruiting this service, only one candidate for the school undergoing, at present, practical test in the forests.

Office establishments.

111. Nothing further has yet been heard with regard to the much-needed reorganization of the office establishment. In the Direction is this most acutely felt, and although each and all have worked most industriously and willingly invariably to a late hour in the day, it is impossible to keep affairs in proper order. Mr. J. E. Claudius, the Superintendent, Babu Chandra Nath Ganguly, the Accountant, and the other clerks of the Conservator's office, especially Babu Ambica Charan Bhattacharjee, have continued to earn the approbation of the Conservator, and though much can be done to improve matters by a more methodical system, still assistance is urgently required.

Among the divisional clerks the names of Babus Surendro Nath Mozumdar and Shanta Nadhi Santra have been mentioned as deserving of credit.

Health of establishments.

112. The year has been normal as regards the health of the establishment, though fever has been reported prevalent in eight divisions; one forester and five guards died in the Kurseong division, while seven guards resigned though ill-health.

GENERAL REMARKS.

Circle office accommodation

113. The accommodation given in the cutcherry building for the Conservators, and the Darjeeling Divisional Offices is most inadequate, and attempts, which will be renewed, were made to obtain more space, but without success.

Remittances by postal money-order.

114. The system of remitting revenue to treasuries and advances to subordinates by means of postal money-orders has continued, and has been a source of some income to the Postal Department. During the year Rs. 1,667 have been paid in commission; the chief divisions using the rules are Chittagong and Jalpaiguri, in which Rs. 934 and Rs. 438, respectively, were paid. This expenditure would admit of an establishment of seven men at Rs. 8 each per mensem being employed in each division for this work alone.

Rules for hunting and shooting.

115. The proposed revised rules on the subject of hunting, shooting and fishing are still pending the final sanction of Government.

116. The rules mentioned in paragraph 191 of last annual report for the collection and disposal of drift timber on the river Gandak as being under the consideration of Government were finally published in February 1894 (Notification No. 1026For., dated the 28th February), and have since been in use. Difficulties have, however, already arisen in their application, and it it is probable they will require early revision. The rules for the rivers of the Darjeeling and Jalpaiguri districts have not yet been revised, the Conservator not having been able to submit his report on them during the year.

Drift timber rules.

117. A second edition of the collection of rules under the Forest Act applicable to Bengal was issued by Government in May last.

Rules under the Forest Act.

118. The present Conservator regrets not being able to fully reiterate the remarks made in paragraph 193 of last report. District Forest Officers have, it is true, worked smoothly with the civil authorities, but that interest in forest matters, said to have been shown in 1893-94, seems scarcely to have been maintained, though it is perhaps presumptuous on the part of one so new to the province to offer any remarks on the subject.

Relation between District and Forest Officers.

119. Khedda operations were carried on during the cold season by the Superintendent of Kheddas, Dacca, in the reserved forests of the Duars (Tista and Jalpaiguri Divisions), and as far as information goes, twenty-eight elephants had been captured by the 5th February 1894. These operations may be continued next year.

Khedda operations.

120. The head-quarters of the Chittagong Division was transferred from Rungamatti to Chittagong on the 21st September 1893, and the departmental buildings at the former place were sold by public auction for Rs. 305, the office being accommodated in the Commissioner's office in the kutcherry.

Removal of Chittagong divisional head-quarters.

121. The forest year is certainly more convenient as regards that portion of the annual report dealing with fire conservancy, but it is doubtful whether the benefits in this respect, occasioned by the change of period involved, are not more than outbalanced by the disadvantages resulting therefrom. The close of the year, occurring as it does in many hill forests in the middle of cultural operations, necessitates the season's work being described partly in one and partly in the subsequent annual report.

The forest year.

Again, in continuation of the remarks made by Mr. Dansey in his letter forwarding the report for the past year, it must be repeated that the time allowed between the receipt of the divisional reports and the date prescribed for the submission of the Provincial report to Government is too short to allow of justice being done to either, while in general reports there is often confusion as to whether the financial or the forest year is intended. The annual plans of operations, too, are considerably affected by the change, and cannot now be in agreement with the budget estimates.

122. In the Sunderbans division six persons were killed by tigers during the year; eighteen tigers were destroyed and Rs. 875 paid in rewards on that account.

Tigers.

123. The specimens of forest products prepared in the Tista division were again exhibited at the Kalimpong mêla and attracted a good deal of attention. Specimens of bamboos were sent from the Puri division to Mr. Gamble, Director of the Imperial Forest School, who kindly returned named, seven species identified.

Specimens of forest products.

A. E. WILD,
Conservator of Forests, Bengal.

DARJEELING,
The 12th October 1894.

FORM No. 46.

FOREST DEPARTMENT, BENGAL.

Area of Reserved Forests, 1893-94.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1893.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1894.		No. and date of notification of addition or transfer, &c.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
Darjeeling.	Senchal ...	Darjeeling district.	Senchal	2,094	14	...	5,955(a)	3,139	5		
			Mahalderam	4,440	7	...	...	4,440	7		
	Tukdah ...	Ditto ...	Tukdah	2,200	3	...	...	2,200	3		
			Senchal	...	...	5,955(a)	...	5,955	9		
	Goompahar ...	Ditto ...	Goompahar	8,890	14	....	...	8,890	14		
	Singalila ..	Ditto ...	Singalila	41,254	64	...	...	41,254	64		
	Tista Valley ...	Ditto ...	Rangit	3,663	6	...	...	3,663	6		
			Mangwa	995	2	...	...	995	2		
			Ruang	2,902	4	...	...	2,902	4		
			Total ...	73,498	114	5,955	5,955	73,498	114		
Tista.	Tista ...	Darjeeling district.	Rilli	5,287	8	...	...	5,287	8		
			Kalimpong	7,350	11	...	...	7,350	11		
			Dumsong	14,032	22	...	32(c)	14,000	22		
			Rissoom	5,150	8	...	...	5,150	8		
	Pankasari ...	Ditto ...	Loolagaon	8,239	13	...	...	8,239	13		
			Pankasari	9,809	16	...	...	9,809	16		
			Rhenock	3,225	5	...	...	3,225	5		
			Richila	10,644	17	...	...	10,644	17	.....	300 acres in charge of Civil authorities for a location.
	Jaldaka ...	Ditto ...	Mo	4,453	7	...	...	4,453	7		
			Jaldaka	14,874	23	...	...	14,874	23		
			Nar	10,003	16	...	...	10,003	16		
			Dalingkot	6,561	10	...	...	6,561	10		
			Mal	5,493	9	...	...	5,493	9		
	Chel ...	Ditto ...	Mongpong	6,230	10	...	...	6,230	10		
			Leesh	4,287	7	...	...	4,287	7		
			Geesh	13,730	21	...	1,469(c)	12,261	19	.. .	460 acres in charge of Cinchona Department.
			Noam	7,860	12	...	...	7,860	12	..	3,540 acres in charge of Cinchona Department.
			Total ...	137,317	215	...	1,501	135,816	213		
Kurseong.	Eastern ...	Darjeeling district.	Dhobijhora	589	1	...	...	589	1		
			Babukhola	1,840	3	...	...	1,840	3		
			Sivakhola	408	1	...	...	408	1		
			Paglajhora	35		...	...	35			
			Mahanadi	4,533	7	...	...	4,533	7		
			Champasari	3,003	5	...	...	3,003	5		
			Chokiong	10,144	16	...	...	10,144	16	.....	3 acres leased to Tea Estates.
			Latpanchor	3,495	5	...	...	3,495	5		
			Sivoke	4,623	7	...	...	4,623	7		
			Sivoke Hills	6,664	10	...	...	6,664	10		
			Sitong	7,538	12	...	...	7,538	12		
	Western ...	Ditto ...	Sukna	4,353	7	...	...	4,353	7		
			Manjua	1,112	2	...	...	1,112	2		
			Koohein	514	1	...	...	514	1		
			Manjha	4,002	6	...	...	4,002	6	...	16 acres leased to Tea Estates.
			Mechi	3,152	5	...	...	3,152	5		
			Bolasan	1,761	3	...	...	1,761	3		
			Tukrajhar	1,364	2	...	...	1,364	2		
			Dalkajhar	5,820	9	...	...	5,820	9		
			Pantapari	2,600	4	...	...	2,600	4		
			Bamanpokri	1,372	2	...	...	1,372	2	.....	20 acres leased to Tea Estates.
			Rakti	195	1	...	...	195	1		
			Lamagunba	479		...	...	479			
			Total ...	69,656	109	...	...	69,656	109		
Jalpaiguri.	Apalchand ...	Jalpaiguri district.	Apalchand	18,408	29	...	147(c)	18,261	29		
			Khairanti	53	1	11(c)	...	64	1		
			Malhati	310		10(c)	...	320			
	Tondu ...	Ditto ...	Tondu	54,460	85	...	3,878(c)	50,582	79		
			Damah	15,360	24	646(c)	...	16,006	25		
	Muraghat ...	Ditto ...	Muraghat	12,720	20	1,008(c)	...	11,888	18		
			Goshaihat	...	...	86(c)	...	1,876	3		
			Rehti	2,923	4	340(c)	...	3,263	5		
			Dulgaon	1,375	2	96(c)	...	1,471	2		
			Dumchi	3,062	5	...	44(c)	3,018	5		
			Khairbari	1,775	3	68(c)	...	1,843	3		
			Teeti	7,795	12	372(c)	...	8,167	13		
			Salbari	12	...	4(c)	...	16	...		
			Total ...	118,343	185	2,591	4,069	116,865	183		
Buxa.	Borojhar ...	Jalpaiguri district.	Borojhar	35,200	55	...	...	35,200	55		
			Butri	1,400	2	...	...	1,400	2		
			Gabur Basra	6,400	10	...	...	6,400	10		
			Salkuer	1,100	2	...	...	1,100	2		
	Buxa ...	Ditto ...	Buxa	92,507	145	...	...	92,507	144(b)		
	Haldibari ...	Ditto ...	Raidak	12,800	20	...	...	12,800	20		
			Dhumpara	7,040	11	...	...	7,040	11		
			Bhotka	12,800	20	...	...	12,800	20		
			Total ...	169,247	265	...	...	169,247	264		

(a) Alteration due to changes in administrative charges.
(b) Correction in square miles of last year's return (not shown in column 7 or 8).
(c) Correction of previous returns owing to recalculation of areas.

FORM No. 46—*concluded.*

FOREST DEPARTMENT, BENGAL.

Area of Reserved Forests, 1893-94—concluded.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1893. Acres.	Area on 1st July 1893. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 30th June 1894. Acres.	Area on 30th June 1894. Equivalent in square miles.	No. and date of notification of addition or transfer, &c.	Remarks.
1	2	3	4	5	6	7	8	9	10	11	12
Direction.	Kodarma ...	Hazaribagh district.	Kodarma	29,767	47	...	...	29,767	47		
	Khurchuta ..	Ditto ...	Khurchuta	6,625	10	...	...	6,625	10		
			Total ...	36,392	57	...	...	36,392	57		
Palamau.	Northern ...	Palamau district.	Kechki	440	11	...	...	440	11		
			Betlah	6,847		...	...	6,847			
			Saidope	27,520	43	...	...	27,520	43		
			Hamundag	16,595	26	...	...	16,595	26		
			Kumandi	9,815	15	...	...	9,815	15		
			Peeree	1,523	3	...	...	1,523	3		
			Ooreeya	698	1	...	...	698	1		
	Southern ...	Ditto ...	Barasand	56,951	89	...	...	56,951	89		
			Total ...	120,389	188	...	...	120,389	188		
Singhbhum.	Saranda ...	Singhbhum district.	Saranda	201,110	314	...	201,110(*a*)	...	...		
	Samta ...	Ditto ...	Samta	...	...	122,340(*a*)	...	122,340	191		
	Koina ...	Ditto ...	Koina	...	...	78,770(*a*)	...	78,770	123		
	Chaibassa ...	Ditto ...	Santara	46,080	72	...	...	46,080	72		
			Saitba	18,560	29	...	...	18,560	29		
	Kolhan ...	Ditto ...	Latua	44,800	70	...	...	44,800	70		
			Leda	24,257	38	...	...	24,257	38		
	Porahat ...	Ditto ...	Porahat	132,417	207	...	...	132,417	207		
	Ranchi ...	Lohardaga district.	Horhap	1,098	2	...	...	1,098	2		
			Total ...	468,322	732	201,110	201,110	468,322	732		
Angul.	Tikarpara ...	Angul district.	Tikarpara	94,400	148	...	...	94,400	148	.....	*Vide* Bengal Government Notification No. 1597For., dated 20th March 1894.
	Bagmunda ...	Ditto ...	Bagmunda	38,790	61	...	...	38,790	61		
	Durgapur ...	Ditto ...	Durgapur	9,070	14	...	...	9,070	14		
			Similpoda	3,880	6	...	...	3,880	6		
			Kotora	5,330	8	...	...	5,330	8		
			Antulia Toboda	4,820	8	...	...	4,820	8		
			Konloi	4,000	6	...	...	4,000	6		
			Total ...	160,390	251	...	...	160,390	251		
Puri.	Northern ...	Puri district	Dandimal	19,142	30	...	...	19,142	30		
			Haripur	844	2	...	...	844	1		
			Majana	435		...	...	435	1		
			Bharatpur	2,952	6	...	...	2,952	6		
			Rampur	1,125		...	...	1,125			
			Mendasal	801	1	...	...	801	1		
	Central ...	Ditto ...	Barnai	1,200	2	...	...	1,200	2		
			Panchgarh	1,760	3	...	...	1,760	3		
			Jaimangal	356	3	...	...	356	3		
			Nagapati	1,498		...	...	1,498			
			Kuhuri	1,095	3	...	...	1,095	3		
			Sulia	3,804	6	...	...	3,804	6		
	Southern ...	Ditto ...	Banpur	20,601	32	...	...	20,601	32		
			Rajin	14,500	23	...	...	14,500	22(*b*)		
			Total ...	70,713	111	...	...?	70,713	110(*b*)		
Sundarbans.	Satkhira ...	Khulna district.	Sundarbans	350,720	548	...	...	350,720	548		
	Khulna ...	Ditto ..		541,440	846	...	...	541,440	846		
	Bagerhat ...	Ditto ...		446,720	698	...	...	446,720	698		
			Total ...	1,338,880	2,092	...	...	1,338,880	2,092		
Chittagong.	Kassalong ...	Chittagong Hill Tracts.	Kassalong	488,320	763	...	...	488,320	763		
	Sitapahar ...	Ditto ...	Sitapahar	7,020	11	...	...	7,020	11		
	Matamori ...	Ditto ...	Matamori	160,640	251	...	...	160,640	251		
	Sungu ...	Ditto ...	Sungu	93,190	146	...	...	93,190	145(*b*)		
	Rhinkheong ...	Ditto ...	Rhinkheong	137,570	215	...	...	137,570	215		
	Ramgarh Sitakund.	Chittagong Collectorate	Ramgarh Sitakund	...	...	84,874(*d*)	...	84,874	133	Bengal Government Notification No. 4960For., dated 1st December 1893.	
			Total ...	886,740	1,386	84,874	...	971,614	1,518		
					5,705						
			Grand Total ...	3,649,877	5,703	294,530	212,635	3,731,772	5,831		
					5,213				5,705		
			Total for 1892-93 ...	3,334,736	5,211	529,993	214,852	3,649,877	5,703		

(*a*) Alteration due to changes in administrative charges.
(*b*) Correction in square miles of last year's return (not shown in column 7 or 8).
(*d*) Additional new areas.

Abstract of changes during the year.

	Acres.	Acres.	Acres.
Area at commencement of the year...	...	...	3,649,877
Added—			
By change in administrative charges ...	207,065		
,, correction of areas	2,591		
,, transfer of new areas	84,874		
		294,530	
Excluded—			
By changes in administrative charges ...	207,065		
,, correction of areas	5,570		
		212,635	
Net addition			81,895
Area at close of the year		...	3,731,772

Form No. 46A.

FOREST DEPARTMENT, BENGAL.

Area of Protected Forests, 1893-94.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1893.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1894.		No. and date of notification of addition or transfer, &c.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
Direction	...	Hazaribagh	.....	...	...	...	...	...	...	.....	Area unknown.
Palamau	...	Palamau ...	.....	...	...	...	...	...	...	.....	
		Lohardaga...	.....	...	...	...	...	...	...	.....	
Singhbhum.	...	Singhbhum	.....	320,000	500	...	...	320,000	500	.....	Area estimated.
...	...	Manbhum ...	.....	...	...	...	...	...	...	.....	Area unknown.
			Total ...	320,000	500	...	...	320,000	500		
Puri.	Khurda ...	Puri ...	Khurda	82,901	130	...	...	82,901	130		
	Dandimal ...		Dandimal	51,692	81	...	...	51,692	81		
	Banpur ..		Banpur	47,187	73	...	...	47,187	73		
	Kuhuri ...		Kuhuri	17,519	27	...	...	17,519	27		
			Total ...	199,299	311	...	...	199,299	311		
Sundarbans.	Diamond Harbour.	24-Parganas.	Diamond Harbour	360,960	564	...	4,959(a)	356,001	557	Bengal Government notification No. 4086For., dated 25th September 1893.	
			Baripore	222,080	347	...	...	222,080	347		
	Basirhat ...		Basirhat	848,060	1,325	...	3,140(a)	844,800	1,320	Bengal Government notification No. 4085For., dated 25th September 1893.	
	Satkhira ...	Khulna ...	Satkhira	15,360	24	...	...	15,360	24		
			Total ...	1,446,400	2,260	...	8,099	1,438,301	2,248		
			Grand Total ...	1,965,699	3,071	...	8,099	1,957,600	3,059		
			Total for 1892-93 ...	1,396,163	2,181	569,536	...	1,965,699	3,071		

(a) Transferred to the Commissioner of the Sundarbans for leasing.

Abstract of the changes during the year.

	Acres.
Area at commencement of the year	1,965,699
Excluded—	
By transfer to Civil Department	8,099
Area at close of the year ...	1,957,600

Form No. 46B.

FOREST DEPARTMENT, BENGAL.

Area of Unclassed State Forests, 1893-94.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st July 1893.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1894.		No. and date of notification of addition or transfer, &c.	Remarks.
				Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11	12
Kurseong ...	Eastern ...	Darjeeling...	Paglajhora	... ...	.....	363(a)	...	363	1	Government order No. 2155, dated 5th May 1892.	Acquired under Act I of 1890 by the Public Works Department and made over to the Forest Department.
Chittagong...		Chittagong Hill Tracts.	Hill Tracts unclassed State forests.	2,581,420	4,034	...	...	2,581,420	4,033(b)		
			Grand Total ...	2,581,420	4,034	363	...	2,581,783	4,034		
			Total for 1892-93 ...	2,901,420	4,534	...	320,000	2,581,420	4,034		

(a) Additional new areas.
(b) Correction in square miles of last year's return not shown in column 8.

Abstract of changes during the year.

	Acres
Area at commencement of the year	2,581,420
Added—	
By transfer of new areas	363
Area at close of the year	2,581,783

FORM No. 47.

FOREST DEPARTMENT, BENGAL.

Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlements during 1893-94.

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.						AREAS UNDERGOING SETTLEMENT.						REMARKS.
			Number and date of Government order according final sanction to the settlement.	Name of Forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		
						In Forest accounts.	In other accounts.		Name of tract.	Area in square miles.	Name of tract.	Area in square miles.	In Forest accounts.	In other accounts.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Sq. M.				Rs.	Rs.	Rs.					Rs.	Rs.	
Darjeeling.	Darjeeling	70	...	...	...	...	...	...	Senchal ...	13	.....	...	...	...	Bengal Government notification, dated 4th February 1890.
									Mahalderam...	4	.....	...	...	...	
									Tukdah ...	3	.....	...	...	...	
									Goompahar ...	12	.....	...	...	...	
									Tista Valley ...	12	.....	...	...	...	
									Pujampong ...	...	.....	...	23	...	Area 275 acres. Bengal Government notification No. 2291 For., dated 17th May 1893. Expenditure incurred under AVIIIa.
	Total ...	70	...	...	...	...	...	...	.....	44	.....	...	23	...	
Tista ...	Darjeeling	(a) 161	...	...	...	...	...	...	Rilli ...	4	.....	...	...	...	Bengal Government notification, dated 4th February 1890. (a) Last year's figure, 157, was incorrect.
									Kalimpong ...	11	.....	...	...	...	
									Dumsong ...	22	.....	...	...	...	
									Rissoom ...	8	.....	...	...	...	
									Loolagaon ...	7	.....	...	...	...	Last year's figure, 13, was incorrect.
	Total ...	161	...	...	...	...	...	...	.....	53	.....	...	...	...	
Kurseong	Darjeeling	14	...	...	...	...	...	...	Dhobijhora ...	1	.....	...	...	...	
									Sivakhola ...	1	.....	...	...	...	
									Mahanadi ...	7	.....	...	...	...	
									Champasari ...	5	.....	...	...	...	
									Choklong ...	16	.....	...	...	...	
									Latpanchar ...	5	.....	...	...	...	
									Sivoke ...	7	.....	...	...	...	
									Sivoke Hills...	10	.....	...	...	...	
									Sitong ...	11	.....	...	...	...	
									Sukna ...	7	.....	...	...	...	
									Manjua ...	2	.....	...	...	...	
									Koohien ...	1	.....	...	...	...	
									Manjha ...	6	.....	...	...	...	
									Mechi ...	2	.....	...	...	...	
									Balasan ...	3	.....	...	...	...	
									Balasan ...	...	.....	...	...	...	Bengal Government notification No. 4219, dated 5th December 1892. Area 105 acres.
									Dalkajhar ...	7	.....	...	...	...	
									Pantapari ...	1	.....	...	...	...	
									Bamanpokri ...	2	.....	...	...	...	
									Rakti	1	.....	...	...	...	
									Lamagumba...						
	Total ...	14	...	...	...	...	...	...		95	.....	...	...	...	

Jalpaiguri	Jalpaiguri	39	Government letter No. 240T.R., dated 24th June 1894.	Apalchand	29	...	...	...	Apalchand ...	29	.....	...	...	...	Last year's opening figure of 185 square miles settled was not correct. As a matter of fact the final orders of Government regarding 144 square miles were passed on the 22nd June 1894 only, although the work had really been completed in June 1891. There has been a decrease of 2 square miles in the total area due to recalculation, *vide* Form 46.
				Tondu ...	67	...	...	...	Tondu ...	67	.....	...	...	...	
				Dainah ...	25	...	...	...	Dainah ...	25	.....	...	...	...	
				Muraghat ...	18	...	...	...	Muraghat ...	18	.....	...	...	...	
				Dulgaon ...	2	...	...	...	Dulgaon ...	2	.....	...	...	...	
				Khairbari ...	3	...	...	...	Khairbari ...	3	.....	...	...	...	
	Total ...	39	...	...	144	...	...	...	.....	(b) 144	.....	...	...	...	(b) Bengal Government notification, dated 19th August 1890.
Buxa ...	Japaiguri	14	Government letter No. 240T.R., dated 24th June 1894.	Borojhar ...	55	...	...	...	Borojhar ...	55	.....	...	...	...	The opening figure of 265 square miles that is the total area of the Division, given as settled in last year's return must have been a misapprehension. No proposals even had ever been made to settle 51 square miles, and Government now consider a settlement unnecessary.
				Buxa ...	144	...	...	...	Buxa ...	144	Panbari ... (Buxa extension.)	7	...	...	
	Total ...	14	...	...	199	...	...	...	.....	199	.....	(c) 7	...	...	(c) Peiliminary notification No. 2432 For., dated 6th July 1893; final notification No. 2661, dated the 14th May 1894. Became a reserved Forest from 1st July 1894. Area 4,480 acres.
Direction ..	Hazaribagh.	57	...	...	...	...	...	...	.....	...	.....	...	...	...	
Palamau ...	Palamau	4	...	...	...	...	...	...	.....	...	.....	...	...	...	Bengal Government notification No. 1567 For., dated 3rd April 1893, cancelled the notification under section 4; it is not known, therefore, why 188 square miles were entered as finally settled last year, 4 square miles only having been gazetted under section 19. Notification, dated 15th August 1885.
Singhbhum	Singhbhum	730	Bengal Government notification No. 2829 For., dated 28th May 1894.	Tholokabad	(d) 1	...	...	...	.....	...	Tholokabad ...	1	...	...	(d) Will become a reserved Forest from 1st October 1894. Area 520 acres.
	Lohardaga	2	...	...	...	...	...	...	.....	...	.....	...	...	...	
	Total ...	732	...	...	1	...	...	...	...	...	.....	1	...	...	
Angul ...	Angul ...	251	...	...	...	...	...	...	.....	...	.....	...	...	...	
Puri ...	Puri ...	110	...	...	...	...	...	...	.....	...	.....	...	...	...	
Sundarbans	Khulna ...	...	...	...	...	...	...	...	.....	...	.....	...	...	...	Bengal Government notification No. 1733 For., dated 10th May 1893, ordering a settlement cancelled by notification No. 1096, dated 27th February 1894.
Chittagong	Chittagong	1,385	Bengal Government notification No. 4960 For., dated 1st December 1893.	Ramghur-Sitakund	133	...	...	...	Ramghur ... Sitakund ...	133	1. Southern Sitakund.	88	...	...	Bengal Government notification No. 449 For., dated 23rd January 1894.
											2. Deang ...	4	...	...	
											3. Jaldi ...	75	...	...	
											4. Patia and South Rangonia.	90	...	...	
											5. Raojan ...	60	...	...	
											6. Chakoria Sunderbans.	30	...	...	
											7. Hurbhang and Chunati jungles.	...	...	...	Area not reported.
											8. Rangbhang ...	12	...	...	
											9. Gorjania Khantakhali.	102	...	...	
											10. Teknaaf ...	272	...	...	
											11. Naaf Sunderbans.	...	...	...	Ditto.
	Total ...	1,385	...	...	133	...	...	...	.....	133	.....	733	...	...	
	GRAND TOTAL ..	2,837	...	...	477	...	...	...	.....	667	.....	741	23	...	
	Total for 1892-93 ...	5,498	...	...	76	...	...	...	.....	332	.....	...	...	...	

FORM No. 48.

FOREST DEPARTMENT, BENGAL.

Record of Demarcation and Maintenance of Boundaries, 1893-94.

DIVISION.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	EXPENDITURE ON DEMARCATION DURING THE YEAR.		REMARKS.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.	
Darjeeling	...	102	52	154	...	74	228	...	502	
Tista	...	168	7	175	...	71	246	...	900	
Kurseong	...	92	14	106	...	133	239	...	584	Newly acquired Paglajhora unclassed forest unknown.
Jalpaiguri	...	81	31	112	...	108	220	...	766	
Buxa	...	106	9	115	...	146	261	...	1,040	
Direction	...	53	...	53	...	6	59	...	138	Protected forests excluded.
Palamau	...	159	...	159	...	81	240	...	428	Ditto ditto
Singhbhum	...	676	...	676	...	116	792	...	1,250	Ditto ditto
Angul	123	123	...	246	26	16	288	1,507	378	
Puri	...	222	5	227	...	3	230	...	720	Ditto ditto
Sundarbans	...	...	21	21	18	492	531	...	...	Last year's figures erroneously excluded 292 miles of boundary of Protected Forest.
Chittagong	...	65	...	65	...	432	497	...	780	Excludes the new Ramghur-Sitakund boundary, as well as that of the unclassed Forests.
Total ...	123	1,847	139	2,109	44	1,677	3,830	1,507	7,596	
TOTAL FOR 1892-93 ...	86	2,028	57	2,121	...	1,436	3,557	358	7,592	

N.B.—Boundaries include, besides the outer perimeter, the limits of enclosures of private or other lands within the forests, but not the limits of subdivisions, such as blocks, compartments, coupes.

Abstract.

	Rs.
Total columns 9 and 10	9,103
Add; spent on outside demarcation works	57
Total under AVIIIa, Form No. 61 ...	9,160

FORM No. 49.

FOREST DEPARTMENT, BENGAL.

Statement of Forest areas surveyed and under Survey during the year 1893-94.

DIVISION.	AREAS SURVEYED AND UNDER SURVEY DURING THE YEAR.																							Areas remaining to be taken under survey.	Total Forest area at end of the year, as per Form No. 46.	COST.			REMARKS.
	SPECIAL SURVEYS—MAPS ON 4" SCALE OR OVER, BY SURVEY OF INDIA DEPARTMENT OR FOREST SURVEY BRANCH.								ORDINARY, INCLUDED IN DISTRICT SURVEYS.								CHAIN AND COMPASS OR OTHER SURVEYS BY LOCAL OFFICERS.													
	With interior details.					Boundary surveys.			With interior details.					Boundary surveys.			With interior details.					Boundary surveys.							
	With details of growing stock.		Without details of growing stock.						With details of growing stock.		Without details of growing stock.						4-inch or over.		Under 4-inch.										
	Previous.	Of the year.	Previous.	Of the year.	Total cost.	Previous.	Of the year.	Total cost.	Previous.	Of the year.	Previous.	Of the year.	Total cost.	Previous.	Of the year.	Total cost.	Previous.	Of the year.	Previous.	Of the year.	Total cost.	Previous.	Of the year.	Total cost.			Previous.	Of the year.	Entire cost of all surveys to end of the year.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Sq. m.	Sq. m.	Rs.	Rs.	Rs.	
RESERVED FORESTS.																													
Darjeeling	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	114	114	...	...	...	(a) Cost unknown.
Tista	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	213	213	...(a)	...	...(a)	(b) Cost calculated at the rate of Rs. 129 per square mile given in Inspector-General of Forests, Review on Forest Administration in British India for 1891-92.
Kurseong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	169	109	...	...	...	
Jalpaiguri	...	...	183	...	(b)	...	...	...	...	...	...	...	...(c)	...	...	...	...	...	...	...	...	...	...	...	...	183	57,663	...	57,663	
Buxa	...	...	264	...	57,663	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	264				
Direction	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	57	57	...	...	...	
Palamau	...	...	...	...	...	...	...	...(c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	188	225	...	225	
Singhbhum	...	...	...	...	...	532	...	3,233	...	...	...	...	...	...	...	...	...	...	...	...	...	188	...	225	188	188	225	...	225	
Angul	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	200	732	3,333	...	3,333	
Puri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	251	251	...	...	...	
	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	110	110	...	...	...	
Sundarbans	...	...	...	...	...	...	...	...	...	...	2,092	...	...(c)	...	...	...	...	...	...	...	...	...	...	...	...	2,092	...(a)	...	...(a)	(c) Cost uncertain.
Chittagong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,385	(d)133	...(a)	...	1,518	...(a)	...	...	(d) Previously surveyed by the Settlement Department.
Total Reserved	...	...	...	447	...	57,663	532	...	3,233	...	...	2,092	...	...	...	...	...	...	...	...	...	1,573	133	225	1,942	5,631	61,121	...	(e)61,121	
PROTECTED FORESTS.																														
Direction	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Area unknown.
Palamau	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	500	500	...	...	...	
Singhbhum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	311	311	...	...	...	Interior details imperfect.
Puri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,248	...(a)	...	...	
Sundarbans	...	...	...	...	...	...	...	...	...	...	2,248	...	...(a)	...	...	...	...	...	...	...	...	...	...	...	...					
Total Protected	...	...	...	...	...	...	...	...	...	...	2,248	...	...	...	...	...	...	...	...	...	...	...	...	...	811	3,059	...	...	...	
UNCLASSED FORESTS.																														
Kurseong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	Surveyed by Public Works Department.
Chittagong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,033	4,033	...	...	...	
Total Unclassed	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4,033	4,034	...	...	...	
GRAND TOTAL	...	...	447	...	57,663	532	...	3,233	...	...	4,340	...	...(a)	...	...	...	...	...	...	...	...	1,573	134	225	6,986	12,924	61,121	(e)	(e)61,121	(e) Rupees 94 spent on outside works.

FORM No. 50.

FOREST DEPARTMENT, BENGAL.

Progress made in Working-Plans, 1893-94.

DIVISION.	AREAS FOR WHICH WORKING-PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be taken in hand.	Total Forest area as in Form No. 46.	Entire cost, per square mile, of Working-Plans completed.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.				
1	2	3	4	5	6	7	8	9
	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Sq. ms.	Rs.	
			RESERVED FORESTS.					
Darjeeling	38(*a*)	...	12(*b*)	...	64	114	(*c*)	(*a*) Working-Plan of the Forests near Darjeeling.
Tista	...	...	...	213	...	213	...	(*b*) Working-Plan of the Tista Valley.
Kurseong		...		...	109	109	...	(*c*) Undeterminable.
Jalpaiguri	...	...	...	...	183	183	...	
Buxa	...	...	...	...	264	264	...	
Direction	...	...	...	...	57	57	...	
Palamau	...	...	...	...	188	188	...	
Singhbhum	...	...	...	...	732	732	...	
Angul	...	...	...	...	251	251	...	
Puri	...	...	...	...	110	110	...	
Sundarbans	2,092(*d*)	...	...	...	...	2,092	0·59	(*d*) Working-Plan of the Sunderbans Government Forests.
Chittagong	...	...	...	...	1,518	1,518	...	
Total ...	2,130	...	12	213	3,476	5,831	..	
			PROTECTED FORESTS.					
Direction	...	...	...	...	...	...	...	Area unknown.
Palamau	...	...	...	...	...	...	...	Ditto.
Singhbhum	...	...	...	...	500	500	...	
Puri	...	...	...	...	311	311	...	
Sundarbans	2,248(*e*)	...	...	...	...	2,248	0·59	(*e*) Last year's figures reduced by 19 square miles transferred to Civil Department.
Total ...	2,248	...	...	...	811	3,059	..	
			UNCLASSED FORESTS.					
Kurseong	...	...	...	...	1	1	...	
Chittagong	...	...	...	...	4,033	4,033	...	
Total .	...	...	...	...	4,034	4,034	...	
GRAND TOTAL ...	4,378		12	213	8,321	12,924	...	
Figures for 1892-93	38	4,352	...	12	8,408	12,810		

FORM No. 51.

FOREST DEPARTMENT, BENGAL.

Communications and Buildings during 1893-94.

Division.	New work undertaken during the year.						Repairs executed during the year.						Remarks.
	Buildings.		Roads and paths.				Buildings.		Roads and paths.				
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.	Total expenditure on new work.	Nature of repairs.	Expenditure incurred.	Nature of repairs.	Length repaired.	Expenditure incurred.	Total expenditure on repairs.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs.		Miles.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	
Darjeeling	Outhouse to the Forester's hut at Gumpahar with iron sheet roof.	65	Ghum-Manibhanjan path (cart road trace) to open out forests to the north of the range.	2	246	874	Painting roof of the Sukiapokri Forester's quarters.	34	Widening Lower Sukia Ranichuten.	1	242		
	Orderly's hut at Mahalderam	10	Debripani-Nepal Frontier road trace (continuation of last year's work).	...	181		Reroofing the Ranger's outhouse with corrugated iron.	57	Widening and otherwise repairing Lepchajagat Majdhura path.	3	180		
	Latrine at Tonglu	20					Petty repairs to Ranger's kitchen.	3	Clearing the Sukia Manibhanjan road.	3	21		
	Forest guard's hut at Raiang	10	Road in the Pusambing Working Circle (aligning).	...	6		Building the guard's hut at Jorebungalow.	10	Clearing path to Ranger's house.	3	12		
	Mali's hut at Pashok	10	Rangli-Ranchot path in continuation of last year's path.	1	81		Petty repairs to five guards' and one mali's huts in Mahalderam Working Circle.	30	Clearing Sukia Ranichuten ...	2	10		
			Rangirum-Samanjhora road to open communication.	1	95		Petty repairs to Forester's quarters in Mahalderam round.	30	Ditto Ghum rock path ...	1	10		
			Road through the Seem block to open communication with tea estates (part cost).	...	150		Petty repairs to Chattakpur rest-house.	30	General repairs to the Babukhola Mamrim path.	3	45		
							Petty repairs to Rangirum rest-house.	35	Clearing block trace, east of Bara Senchal.	8	24		
							Roofing the Lopchu rest-house with corrugated iron.	351	Clearing upper path leading to Tiger Hill.	1	3		
							Petty repairs to Hoom rest-house.	28	General repairs, Jorbungalow-Senchal path.	3	9		
							Roofing Forester's house at Hoom with corrugated iron.	200	Clearing Rangirum-Jorbungalow path.	4	13		
							Roofing Senchal round officer's quarters.	359	Clearing inspection path leading to Dawaipani.	2	5		
							Petty repairs to Ranger's quarters at Rangirum.	40	Clearing Bungnoo plantation path.	2	6		
							Petty repairs to guard's hut at Jorbungalow.	5	Clearing Dooteria inspection path.	1	4		
									Annual repairs to old Military road leading to the Chimney.	2	99		
									Making revetment wall and blasting rocks on the path forming the block line trace east of Senchal.	...	118		
							Petty repairs to godown at Jalapahar.	40	General repairs to ditto from survey station No. 144 to Rangbi.	...	53		
							Petty repairs to Forester's quarters at Singalila.	47	Rangirum-Jorbungalow path, making bridges, stone walls, blasting rocks, &c.	...	232		
							Petty repairs to four guards' huts in Singalila Range.	12	Repairing Rangirum bungalow road.	...	31		
							Petty repairs to guards' huts at Tista bridge.	5	Clearing the path forming the boundary of Senchal coupe, 1893-94.	...	10		
							Petty repairs to guards' huts at Sumbong.	5					
							Temporary establishment ...	8					
		115		4	759	874							
Carried forward .	.....		.....				.....	1,329	.....	40	1,167		

FORM No. 51—*continued.*

FOREST DEPARTMENT, BENGAL.

Communications and Buildings during 1893-94—continued.

Division.	New work undertaken during the year.						Repairs executed during the year.*						Remarks.
	Buildings.		Roads and paths.			Total expenditure on new work.	Buildings.		Roads and paths.			Total expenditure on repairs.	
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.		Nature of repairs.	Expenditure incurred.	Nature of repairs.	Length repaired.	Expenditure incurred.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs.		Miles.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	
Darjeeling—*concld*).								1,329		40	1,167		
		115		4	759	874			Rangbi-Tiger Hill path making revetment wall and other repairs.	...	128		
									Road from 3rd mile of the Pashok-Jorbungalow road to Ranbi-ridge making wall and other repairs.	...	132		
									General repairs to Rangirum-Dawaipani plantation path.	2	21		
									Repairing old Rangbi Deorali road.	...	15		
									Repairing Rangirum plantation path.	...	6	2,893	Unapportioned expenditure under roads and paths :— Rs.
									Aligning the upper zig-zag of the Rangirum-Dawaipani path.	...	1		Value of blasting powder not used. 283
									Repairing Tonglu-Batasidara road.	5	15		Pay and travelling allowance of the Assistant Engineer. 1,153
									Repairing Tonglu-Kankibong road.	4	13		Pay, &c., of orderly to Assistant Engineer. 18
									Repairing Rimbick spur path	5	15		Pay of a draftsman ... 58
									Repairing Rungbong inspection path.	2	15		Contingencies of Assistant Engineer. 1
									Repairing Galejung path ...	3	15		Temporary road establishment. 110
									Ditto new path in Raiang	2	12		Total ... 1,633
									Ditto Mangwa path ...	2	10		
	Total ...	115		4	759	874		1,329		65	1,564	2,893	
Tista	Four guards' huts, double, with corrugated iron.	546	Tista-Torchu export road (gradient 1 in 25; 6' wide).	1	435	1,560	Petty repairs to divisional head-quarters bungalow.	38	Completing :— Tista-Torchu export road ...	4	425		
	Inspection huts at Malighat, Kolbong, Rhenock, Rooka, Zaranthi, and Samsing.	62	Narchu Valley export road (gradient 1 in 25; 6' wide).	1	145		Petty repairs to cook-house ...	5	Narchu Valley export road ..	2	522		
			Tista-Rilli bridle path (gradient 1 in 15; 6' wide).	1	272		Putting in a new window and whitewashing divisional office.	14	Tista-Rilli bridle path ...	4	518		
			South boundary line export cart road.	1	100		Repairing and whitewashing Head Clerk's quarters.	20	Repairing :— South boundary line cart road.	2	81		
							Ditto wall and floor of Suruk rest-house.	136	Making a bridge on ditto ...	...	25		
							Painting ditto ditto ...	84	Leesh Valley road	4	24		
							Repairing Loolagaon rest-house.	7	Chunbatti to Leso rest-house bridle path.	1	21		
									Monglass road	2	75	2,743	
									Nakti Cart road	4	48		

							Painting Ditto ditto ...	79	Mol block bridle path ...	3	9		
							Ditto Pashiting rest-house	79	Clearing :—				
							Ditto Leso rest-house ...	133	Comessee-Raiang ghat path	2	1		
							Repairing ditto	3	Kalimpong-Malighat road ...	6	3		
							Painting Gorubathan rest-house.	78	Mangbur-Sungsar road ...	13	13		
							Whitewashing Tista Range quarters.	10	Balukop-Paiengaon road ...	8	16		
							Petty repairs to Chel Range Officers' quarters.	20	Suruk-Poubu road	5	4		
							Petty repairs to two Forest Guards' huts.	18	Gorubathan-Paren road ...	9	18		
							Petty repairs to 20 Range and other out-houses.	86					
							Temporary establishment throughout the division.	144					
	Total ...	608		4	952	1,560		940		69	1,803	2,743	
Kurseong	Guard's hut at Mana	8	Fogotar bridle path in Babukhola forest to open out communication.	1	14	} 306	Roofing verandah of the divisional bungalow with corrugated iron.	421	Clearing jungle and repairing Dhobijhora bridle path.	10	61	} 3,053	(a) Cost Rs. 75 not paid during the year.
	Ditto at Dhobijhora ...	7							Clearing jungle and repairing Jogijhora Latpanchar path.	13	90		
	Ditto at Sivoke ...	7					Reroofing servants' quarters of the divisional bungalows with corrugated iron.	415	Clearing jungle and repairing Berrick path.	8	40		
	Ditto at Mahanadi ...	7	Inspection path from Kalijhora to Latpanchar to open out communication with the Tista Valley forests from Dhobijhora.	2	186		Roofing second half portion of the Kurseong Forester's quarters at Dhobijhora with corrugated iron.	269	Kalijhora road widened 2½ miles and clearing jungle for 5 miles.	5	100		
	Ditto at Jogijhora ...	7							Clearing Babukhola road ...	3	10		
	Servants' quarters attached to Sukna rest-house.	22					Petty repairs to rest-house at Latpanchar.	22	Clearing Sivoke-Latpanchar road.	13	80		
	Cook-shed for head clerk at Sukna.	6	Mamring road to open communication.	2	...(a)		Petty repairs to rest-house at Babukhola.	2	Clearing jungle, Ponchanai-Golaghat cart track.	1	2		
	Temporary divisional office at Sukna.	9					Roofing Sukna rest-house with corrugated iron.	1,057	Clearing jungle, Sukna-Gulma cart track.	...	2		
	Out-house attached to the rest-house at Bamanpukri.	6					Petty repairs to servants' quarters at Sukna.	15	Clearing Gulma Valley inspection path.	1	4		
	Two out-houses attached to the Forester's house at Bengdubi.	20					Thatching Rangers' out-houses at Sukna.	11	Clearing Choklong inspection path.	...	2		
	Guard's hut at Pantapari ...	7					Thatching guard's hut at Sukna.	3	Clearing Champasari-Choklong inspection path.	2	11		
							Thatching elephants' shed at Sukna.	9	Clearing Pandig inspection path.	2	11		
							Thatching guard's hut at Silibhita.	3	Clearing jungle off Bamanpukri road.	8	38		
							Thatching guard's hut at Janaikuri.	3	Clearing Sukna road	7	35		
							Thatching guard's hut at Champasari.	3	Ditto Mechi road ...	7	35		
							Petty repairs to foresters' out-houses at Gulma.	10	Petty repairs to Bamanpukri cart road.	2	27		
							Petty repairs to guard's hut at Kundong.	3	Petty repairs to Lamagumba Forest road.	1	12		
							Petty repairs to forester's rest-house and guard's hut at Lower Ghoramara.	5	Petty repairs to Manjha-Khairbani road.	3	51		
							Petty repairs to guards' sheds at—		Petty repairs to roads in Sukna and Bamanpukri.	...	8		
							Chua	3	Petty repairs to two bridges in Bamanpukri.	...	7		
							Majua	2					
							Shivakhola	2					
							Latpanchar	2					
							Rethatching Bamanpukri rest-house.	24					
							Rethatching ranger's house at Bamanpukri.	40					
							Rethatching Forester's house at Mechi.	25					
							Rethatching and repairing walls of Forester's house at Bengdubi.	40					
							Petty repairs to Sukna Forester's hut.	6					
							Petty repairs to rest-house at Bengdubi.	9					
							Petty repairs to guard's hut at Bamanpukri.	6					
							Petty repairs to six guards' huts	17					
	Total ...	106	.....	5	200	306	.....	2,427	.....	87	623	3,053	

FORM No. 51—*continued.*

FOREST DEPARTMENT, BENGAL.

Communications and Buildings during 1893-94—continued.

DIVISION.	NEW WORK UNDERTAKEN DURING THE YEAR.					REPAIRS EXECUTED DURING THE YEAR.					REMARKS.
	Buildings.		Roads and paths.		Total expenditure on new work.	Buildings.		Roads and paths.		Total expenditure on repairs.	
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path. / Expenditure incurred.		Nature of repairs.	Expenditure incurred.	Nature of repairs.	Length repaired. / Expenditure incurred.		
1	2	3	4	5 / 6	7	8	9	10	11 / 12	13	14
		Rs.		Miles. / Rs.	Rs.		Rs.		Miles. / Rs.	Rs.	
Jalpaiguri ...	Rest-house at Katambari (partly constructed).	441	Laying out new trace Upper Tondu, to connect with Gorumara and the railway, 3 miles.	... / 5	1,775	Petty repairs to Apalchand range house and out-houses.	37	Guzliduba-Chel road renewing pegs, new earthwork and drains.	6 / 293	2,356	* Rs. 912 spent during 1892-93; total cost Rs. 1,501.
	Guard's hut at Guzliduba ..	6				Petty repairs to five guards' huts.	13	Katambari-Tista road clearing jungle 10 feet wide.	1 / 8		
	Rest-house at Gorumara (completed)*	589				Repairs to Tondu range head-quarters floor, walls, and out-houses.	20	Katambari-Udlabari road straightening and clearing jungle 20 feet wide.	6 / 55		
	Out-houses at Gorumara (part materials).	203				Petty repairs to forester's house at Ramsaihat.	23	Guzliduba inspection path clearing 10 feet wide.	3 / 24		
	Range head-quarters cook-house.	15				Lataguri inspection hut, repairs to roof walls.	14	Lataguri-Gorumara road cutting jungle, uprooting of stumps and new earthwork.	7 / 472		
	Guard's hut at Kolabari ...	8				Petty repairs to seven guards' huts.	16	Path from range head-quarters to Ramsaihat.	1 / 9		† Rs. 137 spent during 1892-93; total cost Rs. 574.
	Culvert to carry off a spring beneath Gorumara rest-house site.	20				Boirupara rest-house, repairs to roof and floor.	50	Bechabanga road clearing of jungle 10 feet wide, straightening and partial levelling.	5 / 41		
	Gairkata range house (completed)†.	391				Repairs to old ranger's hut at Gairkata.	5	Tondu-Dhupjhora road clearing jungle 15 feet wide,	4 / 53		
	Out-houses of ditto ...	46				Repairs to four guards' huts..	20	Lataguri-Chalsa road clearing grass 10 feet wide.	7 / 43		
	Hut for forester	22				Roofing with corrugated iron, rewalling and flooring divisional office.	786	Other footpaths clearing grass 10 feet wide.	13 / 93		
	Guard's huts at Mogolkata, Gairkata and Rehti.	29				Petty repairs, cloth ceiling, punkhas to divisional bungalow.	82	Road along 3rd compartment line, clearing jungle.	4 / 25		
								Road along 4th compartment line, clearing grass.	4 / 24		
								Clearing Nonai depôt road ...	9 / 72		
								Ditto Dalgaon road ...	2 / 16		
								Ditto Dumchi road ...	3 / 24		
								Ditto 20 feet wide Haldibari-Mogolkata new trace.	2 / 35		
	Total ...	1,770	.....	... / 5	1,775	.....	1,066	.....	77 / 1,290	2,356	
Buxa	Rest-house at Alipur ...	1,072	Road from old Alipur-Haldibari road to the north boundary of sal tract in Raidak forest to facilitate export.	2 / 33	1,266	Rethatching of, and repairs to, inspection bungalow at Rajabhatkhawa.	109	11 temporary bridges ...	... / 33		
	Guard's hut at Santrabari ...	13				Ditto small ditto	35	Clearing compartment lines ...	34 / 279		
	Ditto at Salkuer ...	8				Ditto Range house.	40	Ditto Dima road ...	6 / 38		
	Mohant's and peon's hut at Chelpara.	3				Ditto to two forester's houses.	19	Ditto Rajabhatkhawa-Dima road.	1 / 7		
	Inspection hut at Teamari ghat and four out-houses.	55						Clearing Guram road ...	3 / 15		
	Clerk's house	58						Ditto foot-path from Cheko to Gadadhur.	3 / 4		
	Cook-shed	26						Clearing foot-path from 20th compartment line to Poro south boundary.	3 / 3		
	Latrine	4									

								Ditto to elephant shed.	18	11 temporary bridges ...	...		
								Ditto to four Mohants' huts.	20				
								Ditto to nine guards' huts.	76				
								Ditto to 13 out-houses.	146				
								Ditto to one latrine.	1				1,543
								Ditto to one godown.	20				
								Petty repairs to inspection bungalow.	104	Petty repairs to the Satali-Patlakhawa road.	8	128	
								Petty repairs to two inspection huts.	31	Central compartment line ...	3	14	
								Petty repairs to range house at Chilapatha.	53	Clearing Chilapatha foot-path	3	5	
								Petty repairs to six out-houses	66	Ditto Chilapatha foot-path from eastern boundary to Salkuer.	1	2	
								Ditto to four guards' huts.	19	Clearing Chilapatha foot-path from south boundary to Mendabari.	2	12	
								Petty repairs to one guards' hut.	4	Petty repairs to old Alipur-Haldibari road.	2	32	
								Petty repairs to divisional bungalow.	4	Petty repairs to path from Gholani to Sankash river.	1	6	
								Petty repairs to out-houses to divisional bungalow.	124				
								Petty repairs to clerk's house	32				
								Ditto to clerk's out-houses.	26				
								Petty repairs to latrine ...	2				
		Total ...	1,234		2	32	1,266		949		70	594	1,543
Direction ...		Forest guard's hut at Khurchuta	13	.....	...	...	13	Re-roofing Koderma range bungalow with country tiles.	90				
								Re-roofing Khulack thamba bungalow.	50				
								Petty repairs to two guards' huts.	10				179
								Petty repairs to two out-houses at Koderma.	20				
		Total ...	13		...	...	13		179		...	...	179
Palamau ...		Inspection bungalow at Rood	350	Hurnomand-Barasand road for exporting forest produce from Saidope and Ramundag forests.	7	437		General repairs to inspection bungalows:—					
								Kechki	48	General repairs to the Kechki-Betlah road.	8	68	
								Betlah	25				
				Maromand-Barasand export road for removing forest produce from Barasand forest.	4	270	1,157	Moondah	26	Clearing Betlah-Garo road ...	13	16	
								Kumandi	14	Ditto Gadee-Marwaie road	8	13	
								Lat	11	Ditto foot-path in Betlah forest.	2	2	
								Morwaie	32				
				Completion of Maromand-Garo export road.	2	100		Petty repairs to range house at Betlah.	8	Renewing two mile posts on Kechki-Garo road.	...	1	
								Petty repairs to seven forest guards' huts.	22				
								General repairs to the rest-houses—					672
								Maromand	31				
								Barasand	40				
								Neterhat	33				
								Petty repairs to the range house at Maromand.	13				
								Petty repairs to six guards' huts.	15				
								General repairs to head-quarters bungalow, new ceiling and planks.	254				
		Total ..	350	.....	13	807	7	.....	572	.....	31	100	672

FORM No. 51—*continued.*

FOREST DEPARTMENT, BENGAL.

Communications and Buildings during 1893-94—continued.

Division.	New work undertaken during the year.						Repairs executed during the year.						Remarks.
	Buildings.		Roads and paths.				Buildings.		Roads and paths.				
	Description of building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.	Total expenditure on new work.	Nature of repairs.	Expenditure incurred.	Nature of repairs.	Length repaired.	Expenditure incurred.	Total expenditure on repairs.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
				Miles.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	
Singhbhum ..	Collection of materials for the construction of a rest-house at Andaganda.	70	Diverting and bridging the Samta-Jamal cart road.	1	149	3,239	Petty repairs to Sagjore inspection bungalow.	16					
	Erecting two sheds at Jamal	43	Samta-Tirilposi road between Deghia and Andaganda.	1	69		Petty repairs to Samta range house.	1	Repairs to Samta-Tirilposi cart road.	1	62		
	Ditto one guard's hut ...	8	Samta-Hendakuli cart road ...	...	17		Petty repairs to Koina range house.	16	Petty repairs to Sagjore Deghia cart road.	...	7		
	Ditto two guards' huts ...	16	Phulbari-Jamal cart road ..	...	5		Petty repairs to five guards' huts.	15	Petty repairs to Samta Hendakuli cart road.	...	16		
	Completing Goilkora rest-house.	57	Goilkora-Khutlpiri cart road	4	366		Petty repairs to Hesatola rest-house.	25	Petty repairs to Monoharpur Kamart ndong road.	...	5		
	Range house	199	Aligning Kamartondong Patang road.	...	2		Petty repairs to Sonua rest-house.	25	Kairka-Chirkubera road ...	1	10		
	Cook-house for range house ...	14					Petty repairs to Jhulinguta rest-house.	25	Brindabon-Jilinguta road ...	2	20		
	Ditto for Goilkora rest-house.	223					Petty repairs to 13 guards' huts.	39	Repairing and bridging Goilkora-Kamartondong cart road.	...	29		
	Divisional office at Chaibassa (uncompleted).	1,854					Repairs to Goilkora rest-house	202	Barkela-Jalda cart road ...	5	25		
	Servants' house at Chaibassa	99					Petty repairs to Kamartondong rest-house.	25	Barkela-Sarjambura cart road	11	58		
	Railing forest bungalow and office compound.	42					Petty repairs to Chakradharpur rest-house.	10	Khutpani-Sarjambura cart road.	16	128	1,115	
							Petty repairs to Kolhan range house.	28	Koina-Sarjambura cart road	12	96		
							Petty repairs to eight guards' huts.	24	Tirilpi Robaga cart road ...	5	25		
							Petty repairs to forest bungalow at Chaibassa.	100					
							Petty repairs to out-houses of Chaibassa.	1					
							Petty repairs to stable of Chaibassa.	2					
							Petty repairs to range house	20					
							Ditto to nine guards' huts.	30					
	Total ...	2,631	.....	6	608	3,239	.....	604	.....	53	511	1,115	
Angul	Cookshed and stable at Halursinga.	342	Export cart road from Tawa to Bichoudangra to join Bagmunda-Majhipara road leading to the Mahanadi.	2	423	1,889	Repairing and thatching range house at Tikarpara and out-houses.	38	Clearing and generally improving Bagmunda-Majhipara road.	8	153	487	
	Guard's hut at Talka	20	Part of Bagmunda-Majhipara road in Bagmunda range.	2	217		Repairing and thatching rest-house and out-houses at Tikarpara.	40	Clearing Bagmunda-Purnakot road and Bagmunda-Puranpani road.	11	89		
			Cart road from Purnakot to Talka tapping Tikarpara forest.	9	880		Rest-house at Purnakot and out-houses.	35					
			Alignment of a proposed road from Talka to Laobangi.	...	7		Repairing guards' huts in Tikarpara range.	9					
							Repairing guards' huts in Bagmunda range.	26					

							Repairing Durgapur range house and out houses, also guards' huts.	34				
							Repairing settlement house for the accommodation of the divisional office.	63				
	Total ...	362	.....	13	1,527	1,889	.....	245	.....	19	242	487
Puri	Construction of a rest-house at Ankula and one at Arang.	1,200	Rajin-Tamna cart road to open communication between the plains and the Rajin and Tamna forests.	4	950	2,150	Repairs to bungalow	155	Repairs to the Tamna-Rajin road.	4	50	
							Ditto to out-houses	80				
							Ditto to walls and verandahs of cook-shed.	12	Repairs to the path to range bungalow.	...	2	
							Repairs to range house at Banpur.	40				
							Repairs to five guards' huts ...	30				494
							Ditto to range house at Khurda.	40				
							Repairs to one guard's hut ...	4				
							Ditto to the range house and out-houses at Chandka.	45				
							Repairs to seven guards' huts.	36				
	Total ...	1,200		4	950	2,150		442		4	52	494
Sundarbans ...	Cook-shed at Mud Point station.	14	Path from Nalkora coal depôt to the river bank.	...	6		Repairing and generally improving—					
	Cook-shed at Basra station ...	15										
	Family quarters' station ...	101					Mud Point station-house ...	188				
	Rampura station-house (partly).	736					Sikarpore ditto ...	78				
							Nalkora ditto ...	11				
	Family quarters at Basantpore station.	90					Miragunge ditto ...	32				
							Basara ditto ...	79				
	Family quarters for guards of Khulna station.	25					Samukpotta ditto ...	4				
						11,567	Bamanghata ditto ...	5				
	Supoti station-house	1,027					Matla ditto ...	66				
	Sunderbans Divisional office building (completed).	9,080					Shahibkhali ditto ...	17				
							Basantpore ditto ...	11				
	Roads and foot-paths in the compound of Divisional Officer's residence bungalow.	473					Haldurkhali station-house ...	3				1,029
							Boorigoalni ditto ...	50				
							Cobaduk ditto ...	28				
	Road from the main road to the new Forest office at Khulna.	122		...	...		Cassiabad ditto ...	90				
							Baniakhali ditto ...	22				
							Dhaki ditto ...	102				
	Culvert over the drain between the main road and compound of the new Forest office at Khulna.	47		...	...		Dacope ditto ...	22				
							Khulna ditto ...	35				
							Shella ditto ...	55				
							Chandpie ditto ...	23				
							Jewdhara ditto ...	39				
							Supoti ditto ...	7				
							Landing stage at Bamanghata station	3				
	Total ...	11,730		...	6	11,736		1,029		...	...	1,029
Chittagong ...	Kassalong range-house with corrugated iron roof.	1,200	Bamboo bridge on Halingamara road at Kaptai.	...	2		Thatching Kassalong range-house.	15	Clearing Sitapahar Tanga ro d.	12	51	
	Cook-sheds for same	20	Two wooden and eight bamboo bridges on Kaptai Waggaserra road.	...	150		Thatching Rhinkheong range-house.	45	Repairs to two wooden and one bamboo bridges on Kaptai Waggaserra road.	...	52	
	Station-house at Bagkhali ...	100					Thatching Sitapahar forester's house.	45				
	Ditto at Rezu ...	50					Thatching Saugu range-house	20				
	Ditto at Tankawati ...	138										
	Carried forward ...	1,508			152	...		125		12	103	...

FORM No. 51—*concluded.*

FOREST DEPARTMENT, BENGAL.

Communications and Buildings during 1893-94—concluded.

Division.	New work undertaken during the year.						Repairs executed during the year.						Remarks.
	Buildings.		Roads and paths.				Buildings.		Roads and paths.				
	Description of Building.	Expenditure incurred.	Road or path and object of the same.	Length of road or path.	Expenditure incurred.	Total expenditure on new work.	Nature of repairs.	Expenditure incurred.	Nature of repairs.	Length repaired.	Expenditure incurred.	Total expenditure on repairs.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Brought forward ...	Rs. 1,058		Miles.	Rs. 152	Rs.		Rs. 125		Miles. 12	Rs. 103	Rs.	
	Cook-shed at Rhinkheong ...	20				1,790	Thatching Matamori range-house.	40				756	
	Patrol-house at Kurnafuli ...	10					Thatching Sungoo station-house.	40					
	Forester's house at ditto ...	100					Thatching Penny station-house.	100					
							Thatching Syllok station-house.	50					
							Thatching Dhroong station-house.	20					
							Thatching Halda station-house.	20					
							Thatching Surta station-house	30					
							Ditto Sitapahar range out-houses.	58					
							Thatching Matamori station-house.	30					
							Renewing posts of Kaptai inspection bungalow.	72					
							Petty repairs to Daloo station-house.	20					
							Petty repairs to Hanger station-house.	20					
							Petty repairs to Edgong station-house.	25					
							Petty repairs to Issamatti station-house.	3					
	Total ...	1,638		...	152	1,790		653		12	103	756	
	Grand Total ...	21,757		51	5,998	27,755		10,435		487	6,885	17,320	
	Total 1892-93 ...	8,778		114	10,049	18,827		9,675		393	3,721	13,396	

Abstract.

	Buildings.	Roads and bridges.	Total.
1	2	3	4
	Rs.	Rs.	Rs.
New work	21,757	5,998	27,755
Repairs	10,435	6,885	17,320
Add unapportioned expenditure.	.....	1,633	1,633
Total as per form No. 51 ...	A VII*b* 32,192	A VII*a* 14,516	A VII*a* and *b* 46,708

FORM No. 52.

FOREST DEPARTMENT, BENGAL.

Register of Breaches of Forest Rules during 1893-94.

FOREST DIVISION.		Cases pending from 1892-93.	NEW CASES OF THE YEAR.					Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission, or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
Darjeeling	A	...	...	20	11	...	31	31	25	39	6	10	31	49	...
	B	...	1	241	187	17	446	446	446	701	...	...	446	701	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		...	1	261	198	17	477	477	471	740	6	10	477	750	...
Tista	A	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	B	4	4	112	214	3	333	337	279	399	...	...	279	399	58
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		4	4	112	214	3	333	337	279	399	...	...	279	399	58
Kurseong...	A	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	B	...	...	26	33	1	60	60	58	86	1	1	59	87	1
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		...	...	26	33	1	60	60	58	86	1	1	59	87	1
Jalpaiguri	A	...	...	...	...	2	2	2	2	3	...	...	2	3	...
	B	...	...	14	4	1	19	19	19	36	...	...	19	36	...
	C	...	9	...	...	1	10	...	...	...	...	...	...	...	...
Total ...		...	9	14	4	4	31	21	21	39	...	...	21	39	...
Buxa	A	2	...	...	...	...	...	2	1	3	...	...	1	3	1
	B	1	1	1	13	1	16	17	17	28	...	...	17	28	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		3	1	1	13	1	16	19	18	31	...	...	18	31	1
Direction	A	1	...	3	1	...	4	5	4	6	...	...	4	6	1
	B	...	...	1	1	...	2	2	2	3	...	...	2	3	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		1	...	4	2	...	6	7	6	9	...	...	6	9	1
Palamau	A	...	2	2	...	...	4	4	4	9	...	...	4	9	...
	B	...	...	1	5	...	6	6	6	11	...	...	6	11	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		...	2	3	5	...	10	10	10	20	...	...	10	20	...
Singhbhum	A	...	1	11	...	...	12	12	9	14	3	7	12	21	...
	B	1	3	19	2	1	25	26	19	48	...	...	19	48	7
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		1	4	30	2	1	37	38	28	62	3	7	31	69	7
Angul	A	...	1	...	...	...	1	1	1	1	...	...	1	1	...
	B	...	...	5	4	...	9	9	9	21	...	...	9	21	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		...	1	5	4	...	10	10	10	22	...	...	10	22	...
Puri	A	...	4	22	3	5	34	34	27	74	4	11	31	85	3
	B	...	...	13	6	...	19	19	19	37	...	...	19	37	...
	C	...	4	...	...	...	4	...	...	...	...	...	...	...	...
Total ...		...	8	35	9	5	57	53	46	111	4	11	50	122	3
Sundarbans	A	2	...	16	...	17	33	35	32	51	3	8	35	59	...
	B	...	...	99	...	...	99	99	99	102	...	...	99	102	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		2	...	115	...	17	132	134	131	153	3	8	134	161	...
Chittagong	A	...	...	1	...	4	5	5	4	8	1	1	5	9	...
	B	...	...	...	...	9	9	9	9	44	...	...	9	44	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		...	...	1	...	13	14	14	13	52	1	1	14	53	...
GRAND TOTAL ...	A	5	8	75	15	28	126	131	109	208	17	37	126	245	5
	B	6	9	532	463	33	1,043	1,049	982	1,516	1	1	983	1,517	66
	C	...	13	...	...	1	14	...	...	...	...	...	...	...	...

N.B.—A means cases taken into court.
B means cases disposed of under section 67 of Indian Forest Act, 1878.
C means undetected cases.

FORM No. 53.

FOREST DEPARTMENT, BENGAL.

Area of Forest Tracts protected from Fire during 1893-94.

DIVISION.	FOREST TRACTS.	Year in which protection commenced.	Area protected during 1892-93.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8	9
			Acres.	Acres.	Acres.	Acres.	Rs.	
Darjeeling ...	Singalila forest ...	1891-92	7,025	7,025	...	7,025	123	
	Rangit ,, ...	1881-82	3,063	3,663	6	3,657	39	
	Mangwa ,, ...	1881-82	995	995	...	995	9	
	Rajang ,, ...	1885-86	2,962	2,962	...	2,962	10	
	Total ...	...	14,645	14,645	6	14,639	181	
Tista ...	Rilli forest ..	1879-80	5,287	5,287	...	5,287	19	Rs. 9 spent on unprotected areas.
	Kalimpong ,, ...	1885-86	7,350	7,350	1,440	5,910	60	
	Jaldaka ,, ...	1881-82	14,874	14,874	...	14,874	8	
	Nar ,, ...	1881-82	10,093	10,093	...	10,093	8	
	Dalingkot ,, ...	1881-82	6,561	6,561	...	6,561	5	
	Mal ,, ...	1881-82	5,493	5,493	...	5,493	6	
	Mongpong ,, ...	1879-80	6,230	6,230	...	6,230	12	
	Leesh ,, ...	1879-80	4,287	4,287	...	4,287	13	
	Geesh ,, ...	1879-80	13,730	12,261	...	12,261	12	
	Noam ,, ...	1879-80	7,860	7,660	14	7,846	12	
	Total ...	...	81,765	80,296	1,454	78,842	155	
Kurseong ...	Mahanadi forest ...	1876-77	4,533	4,533	...	4,533	146	Rs. 5 spent on unprotected areas.
	Champasari ,, ...	1876-77	3,063	3,063	...	3,063	35	
	Choklong ,, ...	1876-77	10,144	10,144	...	10,144	2	
	Sivoke ,, ...	1876-77	4,623	4,623	...	4,623	232	
	Manjua ,, ...	1882-83	1,112	1,112	...	1,112	17	
	Manjha ,, ...	1879-80	4,002	4,002	...	4,002	67	
	Mechi ,, ...	1884-85	...	236	...	236	17	
	Tukriajhar ,, ...	1882-83	1,364	1,364	...	1,364	36	
	Balasan ,, ...	1884-85	1,761	1,761	...	1,761	19	
	Dalkajhar ,, ...	1878-79	5,819	5,820	...	5,820	223	
	Pantapari ,, ...	1878-79	2,597	2,600	...	2,600	31	
	Bamanpokri ,, ...	1876-77	1,372	1,372	...	1,372	18	
	Rakti ,, ...	1876-77	195	195	...	195	...	
	Lamagumba ,, ...	1876-77	479	479	...	479	10	
	Sukna ,, ...	1876-77	4,353	4,353	...	4,353	193	
	Total ...	...	45,417	45,657	...	45,657	1,046	
Jalpaiguri ...	Apalchand forest ...	1878-79	16,401	16,351	2,785	13,566	516	
	Malhati and Khairanti forests	1878-79	...	384	...	384		
	Tondu forest ...	1878-79	50,770	45,436	230	45,206	528	
	Dainah ,, ...	1881-82	...	...	...	...	...	
	Muraghat ,, ...	1872-73	9,420	9,388	30	9,358	438	
	Goshaihat ,, ...	1881-82	1,840	1,876	1,876	...		
	Dulgaon ,, ...	1879-80	1,055	1,381	480	901		
	Dumchi ,, ...	1879-80	3,052	3,018	...	3,018		
	Rehti ,, ...	1881-82	...	...	...	...		
	Khairbari ,, ...	1882-83	...	..	...	...		
	Teesta ,, ...	1882-83	...	..	...	...		
	Salbari ,, ...	1882-83	..	...	...	...		
	Total ...	...	94,863	77,834	5,401	72,433	1,482	
Buxa ...	Boroghar sál forest ...	1879-80	19,840	19,840	1	19,839	466	
	Ditto sissu ,, ...	1890-91	5,690	5,690	...	5,690	78	
	Butri ,, ...	1883-89	1,400	1,400	320	1,080	67	
	Salkuer ,, ...	1883-84	1,100	1,100	...	1,100	27	
	Buxa plains ,, ...	1876-77	73,030	73,035	5	73,030	901	
	Raidak sál ,, ...	1882-83	8,958	8,958	...	8,958	229	
	Bholka ,, ...	1877-78	12,800	12,800	...	12,800	187	
	Total ...	...	1,22,798	1,22,813	326	1,22,487	2,045	
Direction ...	Kodarma forest ...	1879-80	27,867	29,767	...	29,767	257	
	Khurchuta ,, ...	1893-94	...	6,625	...	6,625	47	
	Total ...	..	27,867	36,392	...	36,392	304	
Palamau ...	Kechki forest ...	1879-80	440	440	...	440	15	
	Bettah ,, ...	1879-80	6,847	6,847	..	6,847	68	
	Saidope ,, ...	1879-80	24,000	27,520	3,210	24,310	122	
	Ramundag ,, ..	1879-80	16,595	16,595	...	16,595	65	
	Kumandi ,, ...	1879-80	9,815	9,815	8,120	1,695	86	
	Peeree ,, ...	1885-86	1,523	1,523	...	1,523	18	
	Ooreeya ,, ...	1885-86	698	698	...	698	23	
	Barasand ,, ...	1879-80	51,511	56,951	5,020	51,931	...	
	Total ...	...	1,11,429	120,389	16,350	104,039	622	
Singhbhum ...	Samta forest ...	1891-92	122,332	122,340	119,200	3,140	64	Rs. 3 spent on unprotected areas in the protected forests.
	Koina ,, ...	1891-92	78,770	78,770	56,800	21,970	203	
	Santara ,, ...	1884-85	46,080	46,080	33,600	12,480	200	
	Saitba ,, ...	1884-85	18,560	18,560	14,240	4,320	202	
	Latua ,, ...	1884-85	44,800	44,800	39,200	5,600	183	
	Leda ,, ...	1884-85	24,257	24,257	20,320	3,937	143	
	Porahat ,, ...	1890-91	132,417	132,417	118,080	14,337	481	
	Horhap ,, ...	1891-92	1,098	1,098	1,098	...	..	
	Total ...	...	468,314	468,322	402,538	65,784	1,535	
Angul ...	Tikarpara forest ...	1884-85	94,490	94,490	8,140	80,350	631	
	Bagmunda ,, ...	1884-85	38,790	38,790	3,840	34,950	298	
	Durgapur ,, ...	1884-85	9,070	9,070	640	8,430	95	
	Simlipoda ,, ...	1884-85	3,880	3,880	640	3,240	68	
	Kotora ,, ...	1884-85	5,330	5,330	1,280	4,050	60	
	Antulia Toboda ,, ...	1884-85	4,820	4,820	50	4,770	85	
	Konloi ,, ...	1884-85	4,000	4,000	...	4,000	37	
	Total ...	...	160,380	160,380	14,590	145,790	1,300	

FORM No. 53—*concluded.*

FOREST DEPARTMENT, BENGAL.

Area of Forest Tracts protected from Fire during 1893-94—concluded.

DIVISION.	FOREST TRACTS.	Year in which protection commenced.	Area protected during 1892-93.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8	9
			Acres.	Acres.	Acres.	Acres.	Rs.	
Puri ...	Dandimal forest ...	1885-86	19,142	19,142	9	19,133	249	
	Haripur ,, ...	1885-86	839	844	...	844	33	
	Majana ,, ...	1885-86	435	435	...	435	33	
	Bharatpur ,, ...	1885-86	2,952	2,952	2	2,950	38	
	Rampur ,, ..	1885-86	1,125	1,125	...	1,125	26	
	Mendasal ,, ...	1885-86	801	801	1	800	33	
	Barunai ,, ...	1885-86	1,200	1,200	...	1,200	40	
	Jaimangal ,, ...	1885-86	356	356	...	356	19	
	Nagapati ,, ...	1885-86	1,498	1,498	5	1,493	40	
	Panchgarh ,, ...	1885-86	1,760	1,760	...	1,760	44	
	Kuhuri ,, ...	1885-86	1,695	1,695	...	1,695	39	
	Sulia ,, ...	1885-86	3,804	3,804	...	3,804	44	
	Banpur ,, ...	1885-86	20,601	20,601	15	20,586	200	
	Rajin ,, ...	1891-92	14,500	14,500	16	14,484	119	
	Total ...	..	70,708	70,713	48	70,665	957	
	GRAND TOTAL ...	...	1,196,186	1,197,441	440,713	756,728	9,627	Rs. 9,627 are exclusive of Rs. 17 spent on areas not specially protected.
	Total for 1892-93 ...	...	1,007,694	1,209,236	11,052	1,198,186	8,136	

FORM No. 54.

FOREST DEPARTMENT, BENGAL.

Area closed and open to Grazing during 1893-94.

DIVISION.	AREA, IN SQUARE MILES.						REMARKS.
	Closed to all animals.		Closed to browsers (camels, goats or sheep).		Open to all animals.	Total area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
	RESERVED FORESTS.						
Darjeeling	39	...	20	...	55	114	
Tista	84	...	...	...	129	213	
Kurseong	98	...	...	...	11	109	
Jalpaiguri	152	31	...	...	...	183	
Buxa	264	...	...	...	...	264	13 square miles open to Commissariat elephants and cantonment cattle.
Direction	57	...	...	...	...	57	
Palamau	188	...	...	...	...	188	
Singhbhum	703	...	...	...	29	732	
Angul	251	...	...	...	...	251	
Puri	110	...	...	...	...	110	
Sundarbans	2,092	...	...	...	...	2,092	Grazing impossible owing to absence of pasture.
Chittagong	1,518	...	...	...	...	1,518	
Total ...	5,556	31	20	...	224	5,831	
	PROTECTED FORESTS.						
Direction	...	...	...	...	...	...	*Hazaribagh district.*—Area unknown, but whole are open to grazing.
Palamau	...	...	...	...	...	...	*Ditto* ditto.
Singhbhum	...	...	...	...	500	500	
Puri	...	...	11	...	300	311	
Sundarbans	2,248	...	...	...	...	2,248	Grazing impossible owing to absence of pastuer.
Total ...	2,248	...	11	...	800	3,059	
	UNCLASSED FORESTS.						
Kurseong	1	...	...	...	...	1	
Chittagong	...	...	...	...	4,033	4,033	
Total ...	1	...	...	...	4,033	4,034	
GRAND TOTAL ...	7,805	31	31	...	5,057	12,924	
Total for 1892-93 ...	4,865	72	4,975	6	6,945	11,926	

FORM No. 55.

FOREST DEPARTMENT, BENGAL.

Return of grazing in the State Forests during 1893-94.

Division.	GRAZING ON PAYMENT. NUMBER OF ANIMALS.													GRAZING FREE. NUMBER OF ANIMALS.											Grand total of value at full rates.
	AT FULL RATES.						AT PRIVILEGED RATES.							BY RIGHT UNDER SETTLEMENT.						DURING PLEASURE OF GOVERNMENT, OR OTHERWISE THAN UNDER SETTLEMENT.							
	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Fees received.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Fees received. Actual.	Fees received. Value at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Value of fees at full rates.	Buffaloes.	Cows and bullocks.	Goats and sheep.	Camels.	Other animals.	Value of fees at full rates.	Total value of fees at full rates.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
						Rs.						Rs.	Rs.						Rs.						Rs.	Rs.	Rs.
RESERVED FORESTS.																											
Darjeeling	14	597	493	...	6	3,279	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,279
Tista	40	383	...	...	14	774	114	914	...	...	28	584	1,214	...	...	...	...	...	...	62	196	...	...	...	573	573	2,561
Kurseong	29	50	...	...	...	409	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	409
Jalpaiguri	693	57	...	...	...	2,165	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,165
Buxa	91	8	...	...	5	511	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	511
Singhbhum ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	867	1,094	493	...	25	7,138	114	914	...	...	28	584	1,214	...	...	...	...	...	...	62	196	...	...	...	573	573	8,925
PROTECTED FORESTS.																											
Direction*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palamau*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Singhbhum* ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puri	2,663	6,199	967	...	72	3,141	20,000†	120,000†	20,000†	...	...	1,520	45,000	...	...	...	...	...	...	...	...	...	...	...	...	...	48,141
UNCLASSED FORESTS.																											
Chittagong* ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL ...	3,530	7,293	1,460	...	97	10,279	20,114	120,914	20,000	...	28	2,104	46,214	...	...	...	...	...	...	62	196	...	...	...	573	573	57,066
Total for 1892-93 ...	850	3,231	827	...	11	7,505	95	873	...	...	...	674	2,200	...	...	...	...	...	...	20,073	120,718	20,000	...	22	58,048	58,048	67,753

* No information available.
† Estimated number grazed by ryots on commutation fees.

FORM No. 56.

FOREST DEPARTMENT, BENGAL.

Area of Plantations, 1893-94.

Division.	Name of Plantation.	Area in acres. On 1st July 1893.	Added during the year.	Excluded during the year.	Area on 30th June 1894.	Receipts of the year.	Charges of the year.	Remarks.
1	2	3	4	5	6	7	8	9
	Regular Plantations.					Rs.	Rs.	
Darjeeling ...	Rungbul (Senchal W.C., block V).	281	...	...	281	...	...	
	Dooteria ditto	367	...	...	367	...	...	
	Rangnu ditto	149	...	...	149	...	...	
	Rangirum (do., block I)	74	...	...	74	...	97	Clearing and filling up vacancies in the plantation of 1892-93, 33 acres.
	Poomong (Tukdah W.C., block I)	226	...	...	226	...	...	
	Tungsong (Pesambing W.C., block V.)	104	...	...	104	...	...	
	Goom (Tasiding W.C., block I.)	150	...	...	150	...	...	
	Pugraingbong (Nagri W.C., block I.)	7	...	...	7	...	...	
	Total ...	1,358	...	...	1,358	...	97	
Kurseong ...	Dhobijhora	13	...	...	13	...	1	
	Ditto (compartments 5 & 6)	23	...	...	23	...	...	
	Ditto (ditto 1 to 4)	39	...	...	39	...	...	
	Bamonpokri	477	...	...	477	...	...	
	Sukna	7	...	...	7	...	...	
	Siliguri	12	...	...	12	...	10	
	Chamta (compartment 5) ...	2	...	...	2	...	...	
	Do. (ditto 1) ...	115	...	...	115	...	...	
	Do. (ditto 3) ...	54	...	...	54	...	...	
	Kynanuka (ditto 2) ...	25	...	...	25	...	...	
	Do. (ditto 3) ...	49	...	...	49	...	...	
	Adalpur (ditto 2) ...	52	...	...	52	...	...	
	Total ...	868	...	...	868	...	11	
Jalpaiguri ...	Falakata	3	...	....	3	...	...	
Pur ...	Barunai Hill	276	...	...	276	...	15	Cost of up-keep.
	Chandmari	15	...	...	15	...	8	
	Santrapur	8	...	...	8	...	8	
	Total ...	299	...	...	299	...	31	Includes an expenditure of Rs. 14 under AVIII*g*.
Chittagong ...	Pahartalli	5	...	...	5	...	...	
	Sitapahar	660	...	...	660	90	924	Rs. Temporary Plantation Establishment 106 Plantation coolies 405 Kaptai dák boat up-keep ... 324 Sitapahar ditto 27
	Total ...	665	...	...	665	90	924	
	Total Regular Plantations ...	3,193	...	...	3,193	90	1,063	Includes Rs. 14 under AVIII*g*.
	Cultural Operations.							
Darjeeling ...	Rangrum (Senchal W. C., block I).	76	...	...	76	...	88	Nurseries.
	(Senchal W. C., block I)	...	61	...	61	...	490	Planting and reclearing coupe of 1892-93.
	Sepoydura (Mahalderam W. C., block V).	29	...	...	29	...	95	Nursery.
	Poomong (Tukdah W. C., block I).	...	...	...	...	...	95	Ditto.
	Nai (Tusiding ditto II)	3	...	...	3	...	...	
	(Tusiding ditto I)	...	6	...	6	...	181	Nursery Rs. 155. Planting coupe, 1892-93, Rs. 24. Experiments Rs. 2.
	Batasidara Plantation of 1892-93 (Tasiding W. C.)	...	...	...	...	...	18	Cost of clearing.
	Chongtong (Mim W. C., block I)	3	...	...	3	...	91	Nursery.
	(Mim W. C., do. I)	...	...	...	...	...	13	Ditto.
	(Mim W. C., do. II)	...	...	...	...	...	5	Ditto.
	Majdhura (Mim W. C.)	...	...	...	...	...	2	Clearing surviving plant.
	Sukiapokri	...	...	...	...	...	54	Nursery.
	Pograingbong (Nagri W. C., block I.)	1	...	...	1	...	92	Ditto.
	Nagri W. C., block I	...	...	...	...	...	9	Ditto.
	Do. W. C., do. V	...	...	...	...	...	3	Ditto.
	Do. W. C., do. V	...	13	...	13	...	95	Planting and reclearing coupe of 1892-93.
	Palangdong (Nagri W. C., block V).	...	...	...	...	...	92	Nursery.
	Seem (Tista Valley Range) ...	20	...	...	2	...	20	Clearing.
	Sumbong (ditto) ...				18			
	Pashok	...	...	...	...	...	92	Nursery.
	Total ...	132	80	...	212	...	1,535	

FORM No. 56—*concluded.*

FOREST DEPARTMENT, BENGAL.

Area of Plantations, 1893-94—concluded.

DIVISION.	Name of Plantation.	AREA IN ACRES. On 1st July 1893.	Added during the year.	Excluded during the year.	Area on 30th June 1894.	Receipts of the year.	Charges of the year.	REMARKS.
1	2	3	4	5	6	7	8	9
	Cultural Operations—concluded.					Rs.	Rs.	
	Dhobijhora	210	...	...	210	...	...	
Kurseong ...	Chamta	11	...	...	11	...	...	
	Sukna	46	...	...	46	...	...	
	Harlia	10	...	...	10	...	...	
	Tukriajhar	1	...	...	1	...	...	
	Rakti	53	...	...	53	...	...	
	Miscellaneous	8	...	...	8	...	...	
	Paglajhora	...	15	...	15	...	19	Sown broadcast. The cost represents the pay of malis on the temporary establishment.
	Total ...	339	15	...	354	...	19	
Jalpaiguri ...	Guxliduba and Rajadanga ...	15	...	...	15	...	...	
	Chengmari	11	...	...	11	...	...	
	Lower Tondu	30	...	...	30	...	...	
	Dainah	3	...	...	3	...	...	
	Murashat	20	...	...	20	...	...	
	Dumchi	10	...	...	10	...	...	
	Total ...	89	..	...	89	...	...	
Buxa ...	Rajabhatkawa—							
	Compartment 25	19	...	...	19	...	...	
	Ditto 26	511	...	...	511	...	...	
	Ditto 24	1	...	...	1	...	...	
	Ditto 21	47	...	...	47	...	...	
	Ditto 23	19	...	...	19	...	...	
	Ditto 15	1	...	...	1	...	...	
	Poro	21	...	...	21	...	...	
	Total ...	619	...	...	619	...	...	
Direction ...	Kodarma	...	...	...	...	...	2	Clearing Divi-Divi plants.
Palamau ...	Betla—							
	(Khair)	8	...	8	...	...	1	
	(Mahogany)	...	...	...	...	...	2	
	Kechki	...	6	...	6	...	21	Khair sowing.
	Total ...	8	6	8	6	...	24	
Angul ...	Bischanda nagra (78 acres) ...	80	...	...	78	...	...	
	Tikarpara (2 do.) ...				2			
	Total ...	80	...	...	80	...	...	
Puri ...	Chundka Block—							
	Dhobabundh	13	...	...	13	...	4	Cost of up-keep.
	Compartment 9	12	...	...	12	...	8	
	Churang block—							
	Compartment 6	5	...	...	5	...	2	
	Ditto 8	7	...	...	7	...	4	
	Total ...	37	...	...	37	...	18	
	Total of Cultural Operations ...	1,304	101	8	1,397	...	1,598	
	GRAND TOTAL ..	4,497	101	8	4,590	90	2,661	Including Rs. 14 under AVIII*g*.
	Total for 1892-93 ...	4,435	77	15	4,497	...	3,220	

ABSTRACT OF CHANGES IN AREA OF PLANTATIONS.

Total of Plantations of all classes at commencement of year			Acres. 4,497
Add :—		Acres.	
Additions made during the year		101	
Deduct :—			
Areas struck off		8	
Net addition ...			93
Total area on 30th June 1894 ...			4,590

ABSTRACT OF CHARGES.

	Rs.	Rs.
Cost of regular plantations	1,063	
Do. of cultural operations	1,598	2,661
Add cost of seed collected in Tista Division for North Western Provinces.		4
Total ...		2,665
Deduct expenditure debited to AVIII*g*		14
Expenditure under AVIII*c* as per Form No. 61		2,651

FORM No. 57.

FOREST DEPARTMENT, BENGAL.

Outturn (in cubic feet, solid) of Timber and Fuel during the year 1893-94, *and Agency of Exploitation.*

Division.	Timber in the rough; Logs.					Timber in the rough; Poles.					Sawn or squared Timber.					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
I.—RESERVED FORESTS.																										
Darjeeling	...	95,119	...	...	95,119	...	15,990	115	...	16,105	88	...	...	...	88	...	...	...	...	...	65,406	689,603	11,462	...	766,471	877,783
Tista	...	42,953	...	...	42,953	...	5,435	125	...	5,560	...	59	...	...	59	...	1,530	...	...	1,530	...	299,627	1,250	...	300,877	350,979
Kurseong	113	49,429	5,112	...	54,654	384	47,512	200	...	48,096	579	...	...	...	579	...	468	...	...	468	...	302,267	...	...	302,267	406,064
Jalpaiguri	...	68,799	3,184	...	71,983	717	84,695	570	...	85,982	769	10	...	...	779	...	20	...	...	20	...	1,110,308	...	...	1,110,308	1,269,072
Buxa	1,163	27,551	...	...	28,714	...	22,523	...	...	22,523	...	689	...	...	689	...	1,075	...	...	1,075	...	16,325	665	...	16,990	63,991
Direction	...	...	...	...	...	...	3,759	...	...	3,759	...	...	...	...	...	...	...	...	...	...	...	22,246	...	...	22,246	26,005
Palamau	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Singhbhum	...	68,058	3,970	...	72,028	1,091	19,195	...	...	20,286	143	2,096	...	...	2,239	...	400	...	...	400	1,316	40,936	...	...	42,252	137,205
Angul	...	642	...	...	642	...	42,750	...	...	42,750	...	...	...	...	...	...	...	...	...	...	...	418	...	...	418	43,810
Puri	...	1,695	...	...	1,695	...	3,241	...	...	3,241	...	...	...	...	...	...	...	...	...	...	...	98,040	...	...	98,040	102,976
Sundarbans	...	1,687,085	...	...	1,687,085	311	1,470,357	...	...	1,470,668	...	...	...	...	...	...	...	...	...	...	1,673	8,351,859	...	...	8,353,532	11,511,285
Chittagong	5,268	...	...	...	5,268	53,658	..	...	...	53,658	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	58,926
Total ...	6,544	2,041,331	12,266	...	2,060,141	56,161	1,715,457	1,010	...	1,772,628	1,579	2,854	..	...	4,433	...	3,493	...	...	3,493	68,395	10,925,689	13,377	...	11,007,461	14,848,096
II.—PROTECTED FORESTS.																										
Direction	...	...	...	...	...	...	3,840	...	...	3,840	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,840
Singhbhum	...	9,100	3,298	...	12,398	90	3,552	1,340	...	4,982	848	...	...	...	848	...	...	...	...	...	657	14,116	...	...	14,773	33,001
Puri	...	...	...	...	...	...	121	...	...	121	...	...	...	...	...	...	...	...	...	...	...	3,376	...	...	3,376	3,497
Sundarbans ...	...	56,680	...	...	56,680	...	(a)160,000 272,795	...	...	(a)160,000 272,795	...	...	...	...	...	...	...	...	...	...	...	(a)12,000,000 2,134,190	(b)2,500,000	...	14,500,000 2,134,190	14,660,000 2,463,665
Total ...	...	65,780	3,298	...	69,078	90	440,308	1,340	...	441,738	848	...	...	...	848	...	...	...	...	...	657	14,151,682	2,500,000	...	16,652,339	17,164,003
III.—UNCLASSED FORESTS.																										
Chittagong	12,625	185,461	...	...	198,086	137	41,065	...	...	41,202	2	22,410	...	...	22,412	3,147	263,414	...	...	266,561	...	160,156	...	...	160,156	688,411
GRAND TOTAL ...	19,169	2,292,572	15,564	...	2,327,305	56,388	2,196,850	2,350	...	2,255,568	2,429	25,264	...	...	27,693	3,147	266,907	...	...	270,054	69,052	25,237,461	2,513,377	...	27,819,890	32,706,510
Total 1892-93 (15 months)	6,343	4,947,148	38,469	...	4,991,960	1,072	2,878,337	8,602	...	2,880,011	4,776	126,371	...	...	131,147	10,493	235,917	...	...	246,410	151,503	26,914,794	2,502,619	...	29,548,916	37,798,444

		Timber.	Fuel.	Total.	Grand total.
Removals from Sundarbans leased land	...	236,499	415,702	652,201	671,224
,, in drift from Gandak river	...	4,757	14,268	19,023	

(a) Estimated poles, firewood, and brushwood to have been removed by the raiyats of the Khurda estate under commutation system.
(b) Estimated to have been removed, free of charge, by Savers and Baories.

FORM No. 58.

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1893-94.

DIVISION.	DESCRIPTION OF PRODUCE.	PRODUCE REMOVED OR UTILIZED.										REMARKS.
		By Government agency.		By purchasers.		By free grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
1	2	3	4	5	6	7	8	9	10	11	12	13
			Rs.		Rs.		Rs.		Rs.		Rs.	
		I.—RESERVED FORESTS.										
Darjeeling	Bamboos ... ... No.	...	...	412,856	483	500	5	...	...	413,356	488	
	Grazing—											
	Sheep and goats ... ... ,,	...	...	493	373	...	...	...	...	493	373	
	Other cattle ... ... ,,	...	...	617	2,906	...	...	...	...	617	2,906	
	Fodder grasses ... ... Mds.	507	8	133,908	1,489	...	...	...	...	130,415	1,497	
	Thatching grasses ... ... ,,	...	...	110	2	...	...	...	...	110	2	
	Aconite ... ... ,,	...	...	40	30	...	...	...	...	40	30	
	Canes ... ... ,,	...	...	672	156	...	...	...	...	672	156	
	Stone ... ... C. ft.	...	...	...	...	60,000	300	...	...	60,000	300	
	Miscellaneous ... ... Mds.	...	...	133	33	...	...	...	...	133	33	
	Total ...	...	...	...	5,471	...	305	...	...	...	5,784	
Tista	Bamboos ... ... No.	...	...	155,415	1,011	...	...	...	...	155,415	1,011	
	Grazing—											
	Other cattle ... ... ,,	...	...	1,492	1,988	258	573	...	...	1,750	2,561	
	Fodder grasses ... ... Mds.	...	...	39,598	341	...	...	...	...	39,598	341	
	Thatching grasses ... ... ,,	...	...	3,010	46	...	...	...	...	3,010	46	
	Canes ... ... ,,	...	...	336	168	...	...	...	...	336	168	
	Limestone and clay ... ... ,,	...	...	782	129	...	...	...	...	782	129	
	Miscellaneous ... ... ,,	...	...	138	35	...	...	...	...	138	35	
	Total ...	...	...	...	3,718	...	573	...	...	...	4,291	
Kurseong	Bamboos ... ... No.	1,090	109	46,364	965	...	...	...	...	47,454	1,074	
	Grazing—											
	Other cattle ... ... ,,	...	...	79	409	...	...	...	...	79	409	
	Fodder grasses ... ... Mds.	...	...	16,670	277	...	...	...	...	16,670	277	
	Thatching grasses ... ... ,,	...	...	1,788	51	...	...	...	...	1,788	51	
	Canes ... ... ,,	...	...	58	174	...	...	...	...	58	174	
	Miscellaneous ... ... ,,	...	...	218	54	...	...	...	...	218	54	
	Total ...	...	109	...	1,930	...	...	...	...	...	2,039	
Jalpaiguri	Bamboos ... ... No.	...	...	7,600	38	...	...	...	...	7,600	38	
	Grazing—											
	Other cattle ... ... ,,	...	...	750	2,165	...	...	...	...	750	2,165	
	Thatching grasses ... ... Mds.	...	...	4,250	67	...	...	...	...	4,250	67	
	Other grasses ... ... ,,	...	...	692	22	...	...	...	...	692	22	
	Fibres ... ... ,,	...	...	50	6	...	...	...	...	50	6	
	Long pepper ... ... ,,	...	...	29	29	...	...	...	...	29	29	
	Canes ... ... ,,	...	...	8	2	...	...	...	...	8	2	
	Miscellaneous ... ... ,,	...	...	104	52	...	...	...	...	104	52	
	Total ...	...	...	...	2,381	...	...	...	...	...	2,381	
Buxa	Bamboos ... ... No.	...	...	1,150	17	...	...	...	...	1,150	17	
	Grazing—											
	Other cattle ... ... ,,	...	...	104	511	...	...	...	...	104	511	
	Fodder grasses ... ... Mds.	...	...	2,696	42	...	...	...	...	2,696	42	
	Thatching grasses ... ... ,,	...	...	3,473	54	160	2	...	...	3,633	56	
	Other grasses ... ... ,,	...	...	220	4	40	1	...	...	260	5	
	Long pepper ... ... ,,	...	...	59	185	...	...	...	...	59	185	
	Canes ... ... ,,	...	...	1	...	42	10	...	...	43	10	
	Miscellaneous ... ... ,,	...	...	33	4	41	3	...	...	74	7	
	Total ...	...	...	...	817	...	16	...	...	...	833	
Direction	Bamboos ... ... No.	...	...	56,712	567	...	...	...	...	56,712	567	
	Fodder grasses ... ... Mds.	...	...	2,620	11	...	...	...	...	2,620	11	
	Sabai grass ... ... ,,	...	...	3,000	380	...	...	...	...	3,000	380	
	Thatching grasses ... ... ,,	...	...	6,875	81	...	...	...	...	6,875	81	
	Fibres ... ... ,,	...	...	690	11	...	...	...	...	690	11	
	Mohua flowers ... ... ,,	...	...	420	86	...	...	...	...	420	86	
	Fruits ... ... ,,	...	...	338	110	...	...	...	...	338	110	
	Mica ... ... ,,	...	...	2,390	8,024	...	...	...	...	2,390	8,024	
	Total ...	...	...	...	9,270	...	...	...	...	...	9,270	
Palamau	Bamboos' ... ... No.	...	...	360,982	2,081	...	...	...	...	360,982	2,081	
	Sabai grass ... ... Mds.	...	...	20	...	...	...	...	...	20	...	
	Thatching grasses ... ... ,,	...	...	3,432	36	...	...	...	...	3,432	36	
	Other grasses ... ... ,,	...	...	32	2	...	...	...	...	32	2	
	Fibres ... ... ,,	...	...	17	...	...	...	...	...	17	...	
	Lac ... ... ,,	...	...	5	13	...	...	...	...	5	13	
	Mohua flowers ... ... ,,	...	...	463	87	...	...	...	...	463	87	
	Fruits (edible) ... ... ,,	...	...	24	3	...	...	...	...	24	3	
	Total ...	...	...	...	2,222	...	...	...	...	...	2,222	

FORM NO. 58—*continued.*

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1893-94—continued.

DIVISION.	DESCRIPTION OF PRODUCE.	PRODUCE REMOVED OR UTILIZED— By Government agency. Quantity.	By Government agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By free grants. Quantity.	By free grants. Value.	By right-holders. Quantity.	By right-holders. Value.	Total. Quantity.	Total. Value.	REMARKS.
1	2	3	4	5	6	7	8	9	10	11	12	13
			Rs.		Rs.		Rs.		Rs.		Rs.	
					I.—RESERVED FORESTS—*concluded.*							
Singhbhum ...	Bamboos ... No.	1,075	3	55,675	139	800	1	...	...	57,050	143	
	Fodder grasses ... Mds.	...	...	15	...	...	...	...	...	51	...	
	Sabai grass ... ,,	...	...	54,952	1,979	...	...	...	...	54,952	1,979	
	Thatching grasses ... ,,	...	...	3,927	85	...	...	...	...	3,927	85	
	Fibres ... ,,	...	...	77	9	...	...	...	...	77	9	
	Lac ... ,,	...	...	...	123	...	...	...	...	...	123	
	Fruits ... ,,	...	...	953	48	...	...	...	...	953	48	
	Stones ... ,,	256	4	674	51	...	...	...	...	930	55	
	Iron ore ... ,,	...	...	182	4	...	...	...	...	182	4	
	Miscellaneous ... ,,	...	...	113	4	...	...	...	...	113	4	
	Total ...	...	7	...	2,442	...	1	...	...	...	2,450	
Angul	Bamboos ... No.	...	...	926,978	1,866	...	...	...	...	926,978	1,866	
	Thatching grasses ... Mds.	...	...	2,042	197	...	...	...	...	2,042	197	
	Fibres ... ,,	...	...	755	19	...	...	...	...	755	19	
	Total ...	...	...	...	2,082	...	...	...	...	...	2,082	
Puri	Bamboos ... No.	...	...	179,136	805	...	...	...	...	179,136	805	Includes Rs. 6 credited under III.
	Other grasses ... Mds.	...	...	56	3	...	...	...	...	56	3	
	Fibres ... ,,	...	...	48	18	...	...	...	...	48	18	
	Honey and wax ... ,,	...	...	21	23	...	...	...	...	21	23	
	Fruits ... ,,	...	...	922	85	...	...	...	...	922	85	
	Do. (edible) ... ,,	...	...	105	45	...	...	...	...	105	45	
	Canes ... ,,	...	...	632	158	...	...	...	...	632	158	
	Kamela dye powder ... ,,	...	...	80	40	...	...	...	...	80	40	
	Miscellaneous ... ,,	...	...	108	2	...	...	...	...	108	2	
	Total ...	...	...	...	1,179	...	...	...	...	...	1,179	
Sundarbans ...	Thatching grasses ... Mds.	...	...	650	10	...	...	...	...	650	10	
	Golpatta (*Nipa fruticans*) ... ,,	...	...	3,814,996	59,609	...	...	...	...	3,814,996	59,609	
	Honey and wax ... ,,	...	...	4,769	4,769	...	...	...	...	4,769	4,769	
	Cane ... ,,	...	...	5,025	79	...	...	...	...	5,025	79	
	Shells (Lime) ... ,,	...	...	58,000	906	...	...	...	...	58,000	906	
	Null (*Arundo karka*) ... ,,	...	...	77,950	1,218	...	...	...	...	77,950	1,218	
	Hantal (*Phœnix paludosa*) ... ,,	...	...	4,950	78	...	...	...	...	4,950	78	
	Total ...	...	...	...	66,669	...	...	...	...	...	66,669	
Chittagong	Bamboos ... No.	...	...	4,116,659	12,350	...	...	...	...	4,116,659	12,350	
	Thatching grasses ... Mds.	...	...	16,200	76	...	...	...	...	16,200	76	
	Kruspath (*Licuala peltata*) ... ,,	...	...	79	28	...	...	...	...	79	28	
	Canes ... ,,	...	...	19,940	2,126	...	...	...	...	19,940	2,126	
	Total ...	...	...	...	14,580	...	...	...	...	...	14,580	
					II.—PROTECTED FORESTS.							
Singhbhum ...	Bamboos ... No.	...	...	25	...	2,300	6	...	...	2,325	6	
	Sabai grass ... Mds.	...	...	2,542	355	...	...	...	...	2,542	355	
	Thatching grasses ... ,,	...	...	150	4	...	...	...	...	150	4	
	Lac ... ,,	...	...	...	30	...	...	...	...	...	30	
	Fruits ... ,,	...	...	1,805	91	...	...	...	...	1,805	91	
	Stone ... ,,	1,215	24	1,533	27	...	...	...	...	2,748	51	
	Mica ... ,,	...	...	320	5	...	...	...	...	320	5	
	Miscellaneous ... ,,	...	...	43	1	...	...	...	...	43	1	
	Total ...	...	24	...	513	...	6	...	...	...	542	
Puri	Bamboos ... No.	...	...	200	1	...	...	...	...	200	1	Credited under XIII.
		...	...	4,000,000	10,417	...	...	...	...	4,000,000	10,417	Estimated removals by raiyats on commutation fees
	Grazing—											
	Sheep and goats ... ,,	...	...	967	242	...	...	...	...	967	242	
	Other cattle ... ,,	...	...	8,934	2,899	...	...	...	...	8,934	2,899	
		...	...	160,000	45,000	...	...	...	...	160,000	45,000	Do. cattle grazed.
	Fruits ... Mds.	...	...	2,308	174	...	...	...	...	2,308	174	
	Do. (edible) ... ,,	...	...	1,314	173	...	...	...	...	1,314	173	
	Stone, laterite, lime &c. ghooting, C. ft.	...	...	97,090	347	1,063,269	5,691	...	...	1,160,359	6,038	
		...	...	400,000	2,000	...	...	...	...	400,000	2,000	Do. removals.
	Kamela dye powder ... Mds.	...	...	170	80	...	...	...	...	170	80	
	Miscellaneous ... ,,	...	...	78	1	...	...	...	...	78	1	
		...	...	4,000,000	83,333	...	...	...	...	4,000,000	83,333	Ditto.
	Total ...	...	...	...	1,44,606	...	5,691	...	...	...	1,50,357	

FORM No. 58—*continued.*

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1893-94—continued.

Division.	Description of Produce.	Produce removed or utilized.										Remarks.
		By Government agency.		By purchasers.		By free grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
1	2	3	4	5	6	7	8	9	10	11	12	13
			Rs.		Rs.		Rs		Rs.		Rs.	
	II.—PROTECTED FORESTS—*concluded.*											
Sundarbans ...	Golpatta (*Nipa fruticans*) ... Mds.	...	...	55,775	671	...	...	...	...	55,775	671	
	Honey and wax ... ... ,,	...	...	4,869	4,869	...	...	...	...	4,869	4,869	
	Shells (Lime) ... ... ,,	...	...	22,875	357	...	...	...	...	22,875	357	
	Hantal (Phœnix paludosa) ... ,,	...	...	165,996	2,594	...	...	...	...	165,996	2,594	
	Total ...	...	...	...	8,491	...	...	...	...	...	8,491	
	III.—UNCLASSED FORESTS.											
Chittagong	Bamboos ... ... No.	6,419	*40	19,762,872	33,795	7,000	21	...	...	19,776,291	33,856	*Revenue credited under RIII.
	Thatching grasses ... ... Mds.	...	...	71,561	4,835	...	...	...	...	71,561	4,835	
	Kruspath (*Licuala peltata*) ... ,,	...	...	358	129	...	...	...	...	358	129	
	Garjon oil ... ... ,,	...	...	3	3	...	...	...	...	3	3	
	Canes ... ... ,,	3	*3	33,034	2,861	30	3	...	...	33,067	2,867	
	Total ...	...	43	...	41,622	...	24	...	...	...	41,689	Removals by purchasers include quantity and value (Rs. 7,739) of produce calculated to have been removed from the forests of Hill Tippera.
	ABSTRACT (CLASS OF FOREST).											
	RESERVED FORESTS.											
	Bamboos ... ... No.	2,165	112	6,319,527	20,322	800	6	...	...	6,322,492	20,440	
	Grazing—											
	Sheep and goats ... ... ,,	...	...	403	373	...	...	...	...	403	373	
	Other cattle ... ... ,,	...	...	3,042	7,970	258	573	...	...	3,300	8,562	
	Fodder grasses ... ... Mds.	507	8	197,507	2,160	...	...	...	...	198,014	2,168	
	Sabai grass ... ... ,,	...	...	57,972	2,359	...	...	...	...	57,972	2,359	
	Thatching grasses ... ... ,,	...	...	45,757	705	160	2	...	...	45,917	707	
	Other grasses ... ... ,,	...	...	1,000	31	40	1	...	...	1,040	32	
	Golpatta (*Nipa fruticans*) ... ,,	...	...	3,814,906	59,609	...	...	...	...	3,814,906	59,609	
	Kruspath (*Licuala peltata*) ... ,,	...	...	79	28	...	...	...	...	79	28	
	Fibres ... ... ,,	...	...	1,637	63	...	...	...	...	1,637	63	
	Honey and wax ... ... ,,	...	...	4,790	4,792	...	...	...	...	4,790	4,792	
	Mohua flowers ... ... ,,	...	...	883	173	...	...	...	...	883	173	
	Fruits ... ... ,,	...	...	2,213	243	...	...	...	...	2,213	243	
	Do. (edible) ... ... ,,	...	...	129	48	...	...	...	...	129	48	
	Long pepper ... ... ,,	...	...	68	214	...	...	...	...	68	214	
	Canes ... ... ,,	...	...	26,672	2,803	42	10	...	...	26,714	2,873	
	Mica ... ... ,,	...	...	2,390	3,024	...	...	...	...	2,390	3,024	
	Stone ... ... { ,, / C. ft.	256	4	674	51	...	...	...	...	930	55	
		...	...	...	...	60,000	300	...	...	60,000	300	
	Limestone and iron ore ... ... Mds.	...	...	964	133	...	...	...	...	964	133	
	Shells ... ... ,,	...	...	58,000	906	...	...	...	...	58,000	906	
	Kamela powder ... ... ,,	...	...	80	40	...	...	...	...	80	40	
	Lac ... ... ,,	...	...	...	136	...	...	...	...	...	136	
	Aconite ... ... ,,	...	...	40	30	...	...	...	...	40	30	
	Null (*Arundo karka*) ... ... ,,	...	...	77,950	1,218	...	...	...	...	77,950	1,218	
	Hantal (*Phœnix paludosa*) ... ,,	...	...	4,950	78	...	...	...	...	4,950	78	
	Miscellaneous ... ... ,,	...	...	846	183	41	3	...	...	887	186	
	Total ...	...	124	...	1,12,761	...	895	...	...	...	1,13,780	
	PROTECTED FORESTS.											
	Bamboos ... ... No.	...	...	4,000,225	10,418	2,500	6	...	...	4,002,725	10,424	Includes estimated removals by raiyats in Puri.
	Grazing—											
	Sheep and goats ... ... ,,	...	...	967	242	...	...	...	...	967	242	
	Other cattle ... ... ,,	...	...	168,934	47,809	...	...	...	...	168,934	47,809	Ditto.
	Sabai grass ... ... Mds.	...	...	2,542	355	...	...	...	...	2,542	355	
	Thatching grasses ... ... ,,	...	...	150	4	...	...	...	...	150	4	
	Golpatta (*Nipa fruticans*) ... ,,	...	...	55,775	671	...	...	...	...	55,775	671	
	Honey and wax ... ... ,,	...	...	4,869	4,869	...	...	...	...	4,869	4,869	
	Fruits ... ... ,,	...	...	4,113	265	...	...	...	...	4,113	265	
	Do. (edible) ... ... ,,	...	...	1,314	172	...	...	...	...	1,314	172	
	Mica ... ... ,,	...	...	320	5	...	...	...	...	320	5	
	Stone, laterite lime shooting, &c. ,,	1,215	24	498,623	2,374	1,063,269	5,691	...	...	1,563,107	8,089	Ditto.
	Shells ... ... ,,	...	...	22,875	357	...	...	...	...	22,875	357	
	Kamela powder ... ... ,,	...	...	170	80	...	...	...	...	170	80	
	Lac ... ... ,,	...	...	...	30	...	...	...	...	...	30	
	Hantal (*Phœnix paludosa*) ... ,,	...	...	165,996	2,594	...	...	...	...	165,996	2,594	
	Miscellaneous ... ... ,,	...	...	4,000,121	83,335	...	...	...	...	4,000,121	83,335	Ditto.
	Total ...	...	24	...	1,53,870	...	5,697	...	...	...	1,59,591	Ditto, Rs. 1,40,780, of which Rs. 4,752 only credited to Government.
	UNCLASSED FORESTS.											
	Bamboos ... ... No.	6,419	40	10,762,872	33,795	7,000	21	...	...	10,776,291	33,856	Removals by purchasers include quantity and (value Rs. 7,739) of produce calculated to have been removed from the forests of Hill Tippera.
	Thatching grasses ... ... Mds.	...	...	71,561	4,835	...	...	...	...	71,561	4,835	
	Kruspath (*Licuala peltata*) ... ,,	...	...	358	129	...	...	...	...	358	129	
	Garjon oil ... ... ,,	...	...	3	2	...	...	...	...	3	2	
	Canes ... ... ,,	3	3	33,034	2,861	30	3	...	...	33,067	2,867	
	Total ...	...	43	...	41,622	...	24	...	...	...	41,689	

FORM No. 58—*concluded.*

FOREST DEPARTMENT, BENGAL.

Outturn of Minor Forest Produce during the year 1893-94—concluded.

DIVISION.	DESCRIPTION OF PRODUCE.	PRODUCE REMOVED OR UTILIZED.										REMARKS.
		By Government agency.		By purchasers.		By free grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
1	2	3	4.	5	6	7	8	9	10	11	12	13
			Rs.		Rs.		Rs.		Rs.		Rs.	
	ABSTRACT: CLASS OF PRODUCE.											
	1. Bamboos ... ... No.	8,584	152	21,062,624	64,535	10,300	33	...	...	21,101,508	64,720	Includes value of calculated removals from Hill Tippera Rs. 5,970. Includes estimated removals by raiyats in Puri 4,000,000 = Rs. 10,417.
	2. Grazing ... ... ,,	...	...	173,436	56,493	258	573	...	...	173,694	57,066	Ditto, 180,000 = Rs. 45,000.
	3. Fodder grasses ... ... Mds.	507	8	197,507	2,160	...	...	...	...	198,014	2,168	
	4. Sabai grass ... ... ,,	...	...	60,514	2,714	...	...	...	...	60,514	2,714	
	5. Golpatta and hantal ... ... ,,	...	...	4,041,717	63,152	...	...	...	...	4,041,717	63,152	
	6. Honey and wax ... ... ,,	...	...	9,659	9,661	...	...	...	...	9,659	9,661	
	7. Mica ... ... ,,	...	...	2,710	8,029	...	...	...	...	2,710	8,029	
	8. Other minor produce ... ... ,,	...	31	...	1,01,509	...	6,010	...	...	...	1,07,550	Ditto, Rs. 65,333, also Rs. 1,769 on account of Hill Tippera.
	GRAND TOTAL	...	191	...	3,08,253	...	6,616	...	...	...	3,15,060	
	Total, 1892-93 (15 months) ..	...	56	...	3,31,093	...	3,446	...	...	...	3,34,595	

Add :—

	Rs.
Sundarbans Division—Value of minor produce removed from leased lands ...	1,088

Deduct :—

	Rs.	Rs.
Difference between the actual fees received and the full value of minor produce removed by purchasers—		
Tista Division	630	
Puri Division	1,35,998	
Total under free grants	6,616	
Value of produce used departmentally } ...	102	
Ditto ditto, unsold }		
Value of estimated removals from Hill Tippera credited to Maharaja	7,739	
		1,51,085
Total receipts under Ic, Ie, IIc, IId, IIe, Part II, and IIg (Rs. 4,752) and Part III (Rs. 50)		1,66,063

Rs. 3,16,148

FORM No. 59.

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce cut or collected by Government agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1893-94.

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.	PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
1	2	3	4	5	6	7	8	9	10
TIMBER.									
Balance at commencement of the year—					Removed by purchasers from depôts—				
Darjeeling Division—					Logs, sissu	18	316		
Scantling, buk	51	204			,, sundri	37	316		
,, lali	2	2			,, various	677	16,254		
Kawla planks	14	2			Timber, jarul	1	11		
			67	208	,, peach pine	3	44		
					,, pieces	3	17		
Buxa Division—					Poles, sundri	6	60		
Sissu logs	28	548			,, various	14,742	53,658		
Sál sleepers	39	53			Posts ,, ...	30	60		
,, scantling	12	9			Saplings ,, ...	80	40		
,, posts	10	76			Boats ,, ...	46	3,255		
			89	685	Konda	1	9		
					Scantings, jarul	6	65		
Direction Division—					,, teak	1	10		
(Bengal share of Gandak drift)—					Teak wood	1	10		
Miscellaneous	42	344			Miscellaneous	302	4,658		
			42	344				16,046	78,812
Sundarbans Division—					Sold locally as *per contra* (a), (b) & (c).	...	...	413	2,165
Sundri logs	37	336							
,, poles	6	60							
Jarul timber	1	11							
,, scantling	6	65							
Peach pine timber	3	44							
Teak wood	1	19			Converted in depôts—				
,, scantling	1	10			Sál logs	17	441		
			55	545	Sissu ,, ...	10	42		
					Titay champ log	1	88		
Chittagong Division—								28	571
Logs	11	465							
Boats	6	672							
Konda	1	9							
			18	1,146					
Total balance ...	...	...	271	2,928	Wastage in conversion—				
					Sál logs	...	281		
					Sissu ,, ...	...	177		
					Titay champ log	...	53		
								...	511
Received from the forests in depôts—									
Logs	516	5,268							
Poles	14,742	53,658							
			15,258	58,926	Given up to claimants—				
					Miscellaneous	...	...	12	71
(a)									
Received from the forests and sold locally—									
Sál logs	43	1,050							
Sissu logs	19	387			Released on payment of tolls—				
Sál poles	96	344			Logs	15	1,990		
Scantlings (various)	44	27			Boats	1	96		
			202	1,848				16	2,086
(b)									
Received by confiscation in the forests and sold locally—					Reduced on remeasurement—				
Katus cantlings	...	...			Sissu logs	...	...	...	13
			206	204					
(c)									
Received by collection of drift and sold locally—									
Sál logs	...	...							
			5	113	Used by Department—				
					Sál logs	71	521		
Received by collection of drift in depôts—					,, poles	855	1,455		
Logs	166	12,573			Miscellaneous poles	40	40		
Posts	16	32			Scantling, sál	1,093	3,370		
Boats	48	3,094			,, sáj	31	11		
Timber piece	1	10			,, champ	294	147		
Miscellaneous	405	4,759			,, titay champ ...	120	88		
			630	20,468	,, katus	38	25		
					,, bhadrasi	18	14		
Received by confiscation in depôts—					,, sissu	108	42		
Logs	2	52			,, kawla	14	2		
Timber pieces	10	43			,, miscellaneous ...	568	428		
Sundri poles	14	134			Sál slabs	30	30		
Pussur ,, ...	11	177			Miscellaneous	2	24	3,286	6,198
Posts	23	59							
Saplings	86	40							
			152	511					
					Written off as lost and useless—				
Received by conversion in depôts—					Log	1	32		
Scantling, sál	323	441			Boats	2	94		
,, sissu	106	42			Sál sleepers	39	53		
,, titay champ	126	88			,, scantlings	12	9		
			555	571	,, posts	10	76	64	263
					Total issues ...	...	...	19,865	90,690

FORM No. 59—*continued.*

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce cut or collected by Government agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1893-94—continued.

TIMBER—*concluded.*

PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.	PARTICULARS.	No. or quantity.	Cubic feet.	TOTAL OF EACH HEAD. No. or quantity.	TOTAL OF EACH HEAD. Cubic feet.
1	2	3	4	5	6	7	8	9	10
Received from the forests and otherwise disposed of—					Balance at close of the year—				
Sál logs	88	1,343			Darjeeling Division—				
Titay champ log	1	141			Scantlings, buk	51	204		
,, poles	855	1,456			,, lali	2	2		
Miscellaneous poles	40	40						53	206
Scantlings, sal	770	2,929			Direction Division—				
,, saj	31	11			(Bengal share of Gandak drift)—				
,, champ	294	147			Miscellaneous	...	...		
,, katus	38	25						41	350
,, bhadrusi	18	14			Sundarbans Division—				
,, miscellaneous ...	568	428			Sundri poles	14	134		
Sál slabs	30	30			Pussur ,, ...	11	177		
			2,733	6,464				25	311
Total Receipts ...	...	...	19,747	89,105	Chittagong Division—				
					Logs	2	82		
					Boats	3	321		
					Posts	15	31		
					Saplings	6	6		
					Pieces	8	36		
								34	476
					Total balance ...	...	...	153	1,343
GRAND TOTAL TIMBER ...	...	...	20,018	92,033	GRAND TOTAL TIMBER ...	...	...	20,018	92,033

FUEL.

Balance at commencement of the year—					Removed by purchasers from depôts—				
Darjeeling Division—					Firewood ... ... mds.	47,381	84,700		
Firewood ... ... mds.	20,122	35,214			Charcoal ... ... bags.	200	1,409		
Charcoal ... ... bags.	11,181	78,267						47,581	86,100
,, dust ... ... ,,	22	154			Received from forests and sold locally—				
			31,325	1,13,635	As per contra (*a*) and (*b*) ...	...	...		
Received from the forests in depôts—								5,058	8,915
Firewood ... ... mds.	...	...	37,302	65,278	Used by Department—				
Received by collection of drift in depôts—					Firewood ... ... mds.	1,746	3,055		
Firewood ... ... mds.	...	...	7,133	14,266	Charcoal ... ... ,,	12	84		
Received by confiscation in depôts—								1,758	3,139
Firewood ... ... mds.	..	...			Transferred to other sale depôts—				
(*a*)			956	1,673	Firewood ... . mds.	...	...		
Received from the forests and sold locally—								4,150	7,262
Firewood ... ... mds.	...	...			Balance at close of the year—				
			5,032	8,806	Darjeeling Division—				
(*b*)					Firewood ... . mds.	17,865	31,264		
Received by confiscation and sold locally—					Charcoal ... ... bags.	10,981	76,867		
Firewood ... ... mds.	14	25			,, dust ... .. ,,	22	154		
Charcoal ... ... ,,	12	84						28,868	1,08,285
			26	109	Sundarbans Division—				
Received by remeasurement—					Firewood ... ... mds.	...	.		
Firewood ... . mds.	...	...	41	72				308	539
					Total balance ...			29,176	1,08,824
Received from the forests and otherwise disposed of—									
Firewood ... ... mds.	1,746	3,055							
Charcoal ... ... ,,	12	84							
			1,758	3,139					
Received by transfer from other sale depôts—									
Firewood ... ... mds.	...	...							
			4,150	7,262					
GRAND TOTAL FUEL ...	...	...	87,723	2,14,240	GRAND TOTAL FUEL ...	...	...	87,723	2,14,240

FORM No. 59—*concluded.*

FOREST DEPARTMENT, BENGAL.

Account of Timber and other Produce cut or collected by Government agency and brought to Depôts, sold locally, or otherwise disposed of during the year 1893-94—concluded.

PARTICULARS.	No. or quantity.	Total of each head.	PARTICULARS.	No. or quantity.	Total of each head
1	2	3	4	5	6
BAMBOOS.					
Balance at commencement of the year	No. ...	No. 100	Removed by purchasers from depôts	No. ...	No. 6,519
Received by collection of drift ...	...	6,419	Sold locally	...	314
Received from the forests and sold locally	...	314	Used by Department	...	1,550
Received from the forests and otherwise disposed of	...	1,550	Balance at close of the year ...	...	...
Total Bamboos ...	...	8,383	Total bamboos ...	...	8,383
OTHER MINOR PRODUCE.					
Balance at commencement of the year	Mds. ...	Mds. ...	Removed by purchasers from depôts— Canes (No. 200)	Mds.	Mds. 3
Received by collection of drift in depots— Canes (No. 200)...	...	3	Sold locally— Fodder grasses	...	507
Received from the forests and sold locally— Fodder grasses	...	507	Used by Department— Slate tiles (No. 5180)	259	
Received from the forests and otherwise disposed of— Slate tiles (No. 5,180) ...	259		Lime	1,206	
Lime	1,206	1,465			1,465
Total other produce ...	...	1,975	Total other produce ...	...	1,975

FORM No. 60A.

FOREST DEPARTMENT, BENGAL.

Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1893-94.

DESCRIPTION OF TIMBER AND OTHER PRODUCE.	ON HAND AT COMMENCEMENT OF THE YEAR.			ON HAND AT CLOSE OF THE YEAR.			DIFFERENCE IN VALUE.		REMARKS.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8	9	10
TIMBER.			Rs.			Rs.	Rs.	Rs.	
Darjeeling Division.									
Scantling (various)	67	208	259	53	206	257	...	2	
Buxa Division.									
Logs	28	548	103	...	...	...	...	...	
Sleepers	39	52	...	...	...	...	...	...	
Scantlings	12	9	...	...	...	...	...	...	
Posts	10	76	...	...	...	...	..	...	
Total ...	89	685	103	...	...	...	...	103	
Direction Division.									
(Bengal share of Gandak drift) Miscellaneous	42	344	188	41	360	175	...	13	
Sundarbans Division.									
Logs	42	410	233	...	...	...	...	...	
Poles	6	60	8	25	311	10	...	...	
Scantlings	7	75	30	...	...	...	...	...	
Total ...	55	545	271	25	311	10	...	261	
Chittagong Division.									
Boats	6	672	60	3	321	30	...	...	
Konda	1	9	10	...	...	...	...	...	
Logs	11	465	45	2	83	15	...	..	
Pieces	...	...	...	8	36	9	...	...	
Posts	...		...	15	31	16	...	..	
Saplings	...	...	...	6	6	1	...	...	
Total ...	18	1,146	115	34	476	71	...	44	
Total Timber ...	271	2,928	936	153	1,343	513	...	423	
FUEL.									
Darjeeling Division.									
Firewood ... ... Mds.	20,122	35,214	5,379	17,865	31,264	4,550	...	...	
Charcoal ... ... Bags.	11,203	78,421	10,523	11,003	77,021	10,333	...	.	
Total ...	31,325	113,635	15,902	28,868	108,285	14,883	...	1,019	
Sundarbans Division.									
Firewood ... ... Mds.	...	...	..	308	539	5	5	...	
Total Fuel ...	31,325	113,635	15,902	29,176	108,824	14,888	...	1,014	
BAMBOOS.									
Chittagong Division	100		5	...	...	...	...	5	
GRAND TOTAL VALUE ...	...	.	16,843	. .	...	15,401	...	1,442	
TOTAL FOR 1892-93 ...	...	...	28,872	...	...	16,843	...	12,029	

FORM No. 60B.

FOREST DEPARTMENT, BENGAL.

Abstract showing the Value of Live and Dead stock for the year 1893-94.

DESCRIPTION OF LIVE AND DEAD STOCK.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		REMARKS
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
1	2	3	4	5	6	7	8
Live stock.		Rs.		Rs.	Rs.	Rs.	
Elephants	8	11,900	8	11,870	...	30	
Total live stock ...	8	11,900	8	11,870	...	30	
Dead stock.							
Buildings	627	77,821	620	98,732	20,911	...	24 out-houses previously shown separately have been omitted.
Stores (mathematical)	614	4,305	627	4,282	...	23	
Do. (ordnance) .	808	41	42	280	239	..	Last year's figures were wrong.
Furniture	1,591	10,187	1,613	10,408	221	...	
Tents	24	3,090	22	2,804	...	286	
Boats	69	22,745	65	22,331	...	414	
Steamers	3	91,827	3	90,803	...	1,024	
Steam-cutters	3	12,552	3	12,015	463	..	
Barge	1	5,336	1	5,068	.	268	
Miscellaneous	17,703	29,352	5,293	30,801	1,449	...	Number of many stores omitted as being meaningless
Total dead stock ...	21,503	2,57,256	8,286	2,78,524	23,283	2,015	
GRAND TOTAL ...	21,511	2,69,156	8,296	2,90,394	23,283	2,045	

Net difference in favour of the year Rs. 21,238.

FORM No. 61.

FOREST DEPARTMENT, BENGAL.

Summary of Revenue of the different Divisions during 1893-94.

BUDGET HEADS.	DIRECTION.	DARJEELING DIVISION.	TISTA DIVISION.	KURSEONG DIVISION.	JALPAIGURI DIVISION.	BUXA DIVISION.	PALAMAU DIVISION.	SINGHBHUM DIVISION.	SUNDARBANS DIVISION.	CHITTAGONG DIVISION.	ANGUL DIVISION.	PURI DIVISION.	TOTAL.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
REVENUE.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the forests by Government agency—													
a. Timber	...	10	...	8	...	325	...	...	... 2	90	...	...	433
b. Firewood and charcoal.	...	13,639	...	...	...	...	...	...		.....	...	...	13,641
c. Bamboos	...	...	...	38	...	...	...	...	...	.....	...	...	38
d. Sandal-wood ...	...	... 8	...	...	...	...	...	...	...	.....	...	...	 8
e. Grass and other minor produce.	...		...	...	...	...	...	...	...	.....	...	...	
Total I ...	...	13,657	...	46	...	325	...	...	2	90	...	...	14,120
II.—Timber and other produce removed from the forests by consumers or purchasers—	...	...	...	...	...	...	...	158	...	.....	...	7,994	8,152
a. Timber	128	16,721	3,906	2,891	31,235	9,707	...	19,516	2,21,268	36,035	2,509	794	3,51,700
b. Firewood and charcoal.	184	18,190	2,435	4,410	5,612	110	...	1,062	1,64,342	394	6	3,351	2,00,116
c. Bamboos	567	483	1,011	965	38	17	2,061	139	...	40,175	1,866	799	48,141
d. Grazing and fodder grass.	11	4,768	1,699	686	2,165	553	...	...	...	.....	...	3,141	13,023
e. Other minor produce.	8,692	220	378	279	178	247	141	2,816	76,448	8,288	216	1,148	99,051
g. Other items ...	...	...	...	...	...	...	...	100	...	...	...	1,058	1,158
Total II ...	9,582	40,382	9,429	16,231	39,318	10,634	2,223	23,811	4,62,058	84,892	4,597	18,265	7,21,341
III.—Drift and waif wood and confiscated forest produce.	3,782	26	3,720	111	3,180	243	...	8	171	1,070	...	15	12,326
Total III ...	3,782	26	3,720	111	3,180	243	...	8	171	1,070	...	15	12,326
IV.—Revenue from forests not managed by Government—													
a. Duty on foreign timber and other forest produce.	...	...	...	...	...	...	...	...	...	.....	...	...	.....
b. Revenue from shared and private forests.	...	...	...	...	...	...	...	...	...	.....	...	...	.....
Total IV ...	...	...	...	...	...	...	...	...	...	...	...	...	.....
V.—Miscellaneous—													
a. Fines and forfeitures	...	52	...	...	... 1	... 74	...	... 30	... 312	.....	...	...	52
b. Refunds	6	2	10	11			...			2,494	...	...	2,940
c. Other sources ...	19	2,155	1,575	1,799	349	509	176	498	5,609	9,170	86	372	22,317
Total V ...	25	2,209	1,585	1,810	350	583	176	528	5,921	11,664	86	372	25,309
GRAND TOTAL REVENUE ...	13,389	56,274	14,734	18,198	42,748	11,785	2,398	24,347	4,68,152	97,716	4,683	18,672	7,73,096

CALCUTTA,
The 31*st August* 1894.

I. C. BOSE,
Assistant Comptroller-General (Forests).

FORM No. 61.

FOREST DEPARTMENT, BENGAL.

Summary of Expenditure of the different Divisions during 1893-94.

BUDGET HEADS.	Direction.	Darjeeling Division.	Tista Division.	Kurseong Division.	Jalpaiguri Division.	Buxa Division.	Palamau Division.	Singhbhum Division.	Sundarbans Division.	Chittagong Division.	Angul Division.	Puri Division.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
A.—CONSERVANCY AND WORKS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the Forests by Government Agency—													
a. Timber	...	...	...	8	...	...	...	2	...	...	...	...	10
b. Firewood and charcoal ...	...	6,414	...	...	...	...	...	...	...	...	...	...	6,414
c. Bamboos	...	...	...	6	...	...	...	...	...	...	...	...	6
d. Sandal-wood	...	...	...	...	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce	...	...	...	...	...	...	...	...	...	...	...	...	...
Total I ...	...	6,414	...	14	...	...	...	2	...	...	...	...	6,430
II.—Timber and other produce removed from the Forests by Consumers or Purchasers,	98	1,197	383	523	257	456	115	1,254	47,530	660	219	456	53,148
Total II ...	98	1,197	383	523	257	456	115	1,254	47,530	660	219	456	53,148
III.—Drift and waif wood and confiscated Forest Produce.	1,415	...	144	...	442	...	...	...	11	199	...	...	2,211
Total III ...	1,415	...	144	...	442	...	...	...	11	199	...	...	2,211
IV.—Revenue from Forests not managed by Government—													
a. Duty on foreign timber and other forest produce.	...	...	..	...	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests.	...	...	...	...	...	...	...	...	...	...	...	...	...
Total IV ...	...	...	...	...	...	...	...	...	...	...	...	...	...
V.—Rent of leased Forests and payments to Shareholders in forests managed by Government.	...	...	...	...	...	...	...	...	...	...	...	...	...
Total V ...	...	...	...	...	...	...	...	...	...	...	...	...	...
VI.—Live Stock, Stores, Tools and Plant—													
a. Purchase of cattle	...	...	...	...	...	...	...	...	...	...	...	...	...
b. Feed and keep of cattle ...	...	...	5	530	1,406	1,366	98	1,427	...	...	...	...	4,832
c. Purchase of stores, tools and plant.	4	473	227	71	154	7	91	587	1,439	133	54	50	3,290
Total VI ...	4	473	232	601	1,560	1,373	189	2,014	1,439	133	54	50	8,122
VII.—Communications and Buildings—													
a. Roads and bridges	...	3,956	2,755	826	1,295	626	907	1,119	6	255	1,769	1,003	14,516
b. Buildings	192	1,444	1,548	2,533	2,836	2,183	922	3,235	12,759	2,291	607	1,643	32,192
c. Other works	2	14	45	48	93	424	17	82	587	23	...	105	1,440
Total VII ...	194	5,414	4,348	3,407	4,224	3,233	1,846	4,436	13,352	2,569	2,376	2,749	48,148
VIII.—Organisation, improvement and extension of Forests—													
a. Demarcation	138	607	900	596	766	1,090	428	1,250	...	780	1,885	720	9,160
b. Cost of settlements; compensation for land and rights.	135	...	...	...	...	...	...	...	...	...	...	...	135
c. Surveys	...	8	...	...	21	...	...	...	65	...	...	...	94
d. Working plans	...	59	...	...	145	...	...	...	291	...	...	...	495
e. Sowing and planting	2	1,632	4	30	...	...	24	...	...	924	...	35	2,651
f. Protection from fire	304	181	184	1,051	1,482	2,045	622	1,538	...	...	1,300	957	9,644
g. Other works	10	363	200	624	24	542	...	2	...	28	...	33	1,826
Total VIII ...	589	2,850	1,288	2,301	2,438	3,677	1,074	2,790	356	1,732	3,185	1,745	24,005
IX.—Miscellaneous—													
a. Refunds	50	269	...	...	90	...	...	...	8	114	...	...	531
b. Law charges	...	...	...	95	...	4	7	23	1	17	4	2	153
c. Other charges	14	192	286	116	22	13	12	470	158	64	27	479	1,862
Total IX ...	64	461	286	211	112	17	19	502	167	195	31	491	2,546
Total A.—Conservancy and Works ...	2,364	16,509	6,661	7,057	9,033	8,756	3,243	10,998	63,855	5,488	5,865	5,481	1,44,010
B.—ESTABLISHMENTS.													
I.—Salaries—													
a. Conservators	21,757	718	...	...	...	...	...	...	...	...	...	...	22,475
b. Superior officers	3,529	16,654	6,803	5,247	8,124	8,322	1,400	16,099	11,395	4,680	2,920	3,600	90,773
c. Subordinate forest and depôt establishments.	953	6,398	3,928	5,684	4,000	3,432	2,174	6,101	17,830	10,919	2,416	2,743	66,578
d. Office establishments	5,845	1,402	1,011	1,012	830	1,008	562	1,628	2,292	2,000	759	910	19,259
e. Deputation and special allowances.	1,882	400	134	75	...	...	...	...	744	341	...	...	3,585
f. Exchange compensation allowances.	2,730	1,093	826	480	1,061	615	197	1,803	596	342	...	...	10,643
Total I ...	36,696	27,574	12,702	12,498	14,015	13,377	4,333	27,631	32,857	18,282	6,095	7,253	2,13,313
II.—Travelling allowances—													
a. Conservators	2,013	50	...	...	...	...	...	...	...	...	...	...	2,063
b. Superior officers	605	4,647	2,171	2,011	953	1,251	88	3,119	1,762	1,123	485	831	19,046
c. Subordinate forest and depôt establishments.	194	1,470	1,058	1,246	535	531	334	709	512	1,212	513	421	8,735
d. Office establishments	205	78	59	143	17	19	19	214	78	222	10	13	1,076
Total II ...	3,017	6,245	3,288	3,400	1,505	1,801	441	4,042	2,352	2,557	1,008	1,264	30,920
III.—Contingencies—													
a. Stationery	12	..	3	4	5	2	6	4	...	5	...	4	45
b. Carriage of tents and records	20	235	251	102	87	66	89	223	10	134	79	48	1,342
c. Rents, rates, and taxes ...	6	423	...	50	137	2	...	68	353	11	...	...	1,049
d. Pay of police guards	...	...	...	...	...	...	...	...	...	...	...	...	...
e. Official postage	410	150	95	154	192	141	28	210	465	317	78	117	2,366
f. Sundries	684	184	144	232	640	66	80	230	985	1,139	120	222	4,744
Total III ...	1,132	998	493	542	1,070	277	203	744	1,813	1,006	277	391	9,546
TOTAL B.—ESTABLISHMENTS ...	40,845	34,817	16,483	16,440	16,590	15,455	4,977	32,417	37,022	22,445	7,380	8,908	2,53,779
GRAND TOTAL OF EXPENDITURE ...	43,209	51,626	23,144	23,497	25,623	24,211	8,220	43,415	99,877	27,933	13,245	14,389	3,98,389

CALCUTTA,
The 31st August 1894.

I. C. BOSE,
Assistant Comptroller-General (Forests).

Form No. 62.

FOREST DEPARTMENT, BENGAL.

Account Current for the year 1893-1894 (*Forest year*).

Dr.

	Rs. A. P.	Rs. A. P.
To Cash balance	.....	724 15 4
,, VIII.—Assessed taxes—		
Income-tax—Deductions from salaries	.....	3,831 4 3
,, Revenue as per Annual Summary, Form No. 61	.....	7,73,096 4 3
,, Service Funds—		
Civil Fund—Ordinary, Bengal	.....	
,, Additional, Bengal	.....	
Military Fund—Bengal	.....	
,, Madras	.....	
Military Orphan Fund—Bengal	.....	
Uncovenanted Service Family Pension Fund—Bengal	3,120 3 0	.....
General Family Pension Fund	255 0 0	
Hindu Family Annuity Fund	.....	3,375 3 0
,, Deposits—	.....	1,746 14 9
,, Forest Cash remittances—Local—		
Forest cheques drawn	3,86,944 9 9	
Inter-Divisional Transfers	1,835 7 2	3,88,780 0 11
,, Advances recoverable	.....	2,13,896 11 7
,, Suspense	.....	90 0 0
,, Account Current (other Governments)—		
Remittances from Government of India ...	2,662 12 8	
Ditto ditto North-Western Provinces and Oudh	2,414 8 0	5,077 4 8
Inter-Departmental Transfers—		
Public Works Department (Ordinary Branches)	155 14 3	
Military Department, Bengal	4 9 3	
Marine Department	10,025 6 6	
Civil Department— Rs. A. P.		
Jail		
Survey of India Department 307 3 0		
Mathematical Instrument Department 361 1 0		
Miscellaneous 572 13 0	1,241 1 0	12,326 15 0
Total ...	.....	14,02,945 9 9

Cr.

	Rs. A. P.	Rs. A. P.
By Expenditure as per Annual Summary Form No. 61	.....	3,96,389 4 10
,, Deposits	.....	1,153 6 9
,, Forest Cash Remittances—Local—		
Remittances to Treasuries	7,61,359 15 4	
Inter-Divisional transfers	1,767 9 9	7,63,127 9 1
,, Advances recoverable		2,16,670 0 1
,, Suspense		20 0 0
,, Account current (other Governments)—		
Remittances to the Government of North-Western Provinces and Oudh	4,052 0 1	
Remittances to the Government of Burmah	5,026 14 1	9,078 14 2
,, Inter-Departmental Transfers—		
Public Works Department, Ordinary Branches	1,620 8 5	
Military Department, Bengal ...	11,550 0 0	
Civil Department—		
,, Miscellaneous	1,189 9 6	
Telegraph Department	4 14 9	
Marine Department	2 1 8	14,367 3 4
By Cash balance	.....	239 4 6
Total ...	.....	14,02,945 9 9

CALCUTTA,
The 31*st August* 1894.

I. C. BOSE,
Asst. Comptroller-General (*Forests*).

Form No. 63.

FOREST DEPARTMENT, BENGAL.

Revenue received and outstandings on account of Revenue during 1893-94.

Division.	Particulars.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to the Department at end of year.	Remarks.
1	2	3	4	5	6	7	8
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Darjeeling	Timber and other produce ...	350 2 6	55,923 15 6	56,274 2 0	56,274 2 0	...	
Tista	Ditto ditto ...	...	14,733 12 3	14,733 12 3	14,733 12 0	0 0 3	
Kurseong	Ditto ditto ...	...	18,217 0 9	18,217 0 9	18,197 12 9	19 4 0	
Jalpaiguri ...	Ditto ditto ...	...	43,062 13 2	43,062 13 2	42,747 13 2	315 0 0	
Buxa	Ditto ditto ...	5 14 4	11,779 7 8	11,785 6 0	11,785 6 0	...	
Direction	Ditto ditto ...	...	13,389 7 9	13,389 7 9	13,389 7 9	...	
Palamau	Ditto ditto ...	...	2,398 7 1	2,398 7 1	2,398 7 1	...	
Singhbhum	Ditto ditto ...	...	24,378 5 7	24,378 5 7	24,346 9 6	31 12 1	
Angul	Ditto ditto ...	...	4,683 10 1	4,683 10 1	4,683 10 1	...	
Puri	Ditto ditto ...	...	18,671 4 2	18,671 4 2	18,671 4 2	...	
Sundarbans	Ditto ditto ...	...	4,68,152 5 3	4,68,152 5 3	4,68,152 5 3	...	
Chittagong	Ditto ditto ...	...	97,715 10 6	97,715 10 6	97,715 10 6	...	
	Total ...	356 0 10	7,73,106 3 9	7,73,462 4 7	7,73,096 4 3	366 0 4	
	Total for 1892-93 (15 months) ...	1,052 12 9	9,04,106 11 0	9,05,159 7 9	9,04,803 6 11	356 0 10	

FORM No. 64.

FOREST DEPARTMENT, BENGAL.

Outstandings and liabilities on account of Contractors and Disbursers for 1893-94.

DIVISION.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE.		REMARKS.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (outstandings).	By Department (liabilities).	
1	2	3	4	5	6	7	8	9	10
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Direction	...	3,811 15 7	3,811 15 7	59 4 2	3,850 13 0	3,910 1 2	98 1 7	...	
Darjeeling	...	17,404 10 4	17,404 10 4	207 4 1	18,137 11 0	18,344 15 1	850 4 9	...	
Tista	...	12,217 4 6	12,217 4 6	401 9 4	12,100 2 0	12,501 11 4	284 6 10	...	
Kurseong	...	19,595 8 8	19,595 8 8	590 8 8	19,344 4 5	19,934 13 1	339 4 5	...	
Jalpaiguri	...	13,833 8 9	13,833 8 9	272 1 10	13,954 1 6	14,226 3 4	392 10 7	...	
Buxa	...	15,277 10 7	15,277 10 7	203 10 10	15,200 11 5	15,404 6 3	216 11 8	...	
Palamau	...	6,312 8 9	6,312 8 9	120 8 1	6,290 11 11	6,411 4 0	98 11 3	...	
Singhbhum	...	23,854 5 0	23,854 5 0	888 11 7	23,745 13 0	24,634 8 7	780 3 7	...	
Sundarbans	...	63,086 0 4	63,086 0 4	3,000 7 4	65,215 6 5	68,215 13 9	5,129 13 5	...	
Chittagong	...	21,668 7 5	21,668 7 5	770 13 11	21,460 11 7	22,221 9 6	553 2 1	...	
Angul	...	8,165 9 11	8,165 9 11	114 2 7	8,426 0 6	8,540 3 1	374 9 2	...	
Puri	...	8,579 1 9	8,579 1 9	383 7 5	8,763 9 4	9,147 0 9	867 15 0	...	
Total ...	...	2,13,890 11 7	2,13,890 11 7	7,012 9 10	2,16,570 0 1	2,23,582 9 11	9,685 14 4	...	

CALCUTTA,
The 31*st August* 1894.

I. C. BOSE,
Assistant Comptroller-General (*Forests*).

FORM No. 65.

FOREST DEPARTMENT, BENGAL.

Financial results of the year 1893-94 (*Forest year*).

DIVISION.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY.		OTHER REVENUE.		FORMATION, PROTECTION, AND IMPROVEMENT OF FORESTS.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Darjeeling	13,033	6,414	42,591	22,010	23,202	56,274	51,626	
Tista	...	...	14,734	8,597	14,547	14,734	23,144	
Kurseong	90	14	18,108	10,958	12,525	18,198	23,497	
Jalpaiguri	...	...	42,748	11,998	13,625	42,748	25,623	
Buxa	325	...	11,460	10,504	13,707	11,785	24,211	
Direction	3,782	1,415	9,607	1,263	40,512	13,389	43,209	
Palamau	...	...	2,398	3,640	4,580	2,398	8,220	
Singhbhum	8	2	24,339	21,190	22,223	24,347	43,415	
Angul	...	...	4,683	4,246	8,999	4,683	13,245	
Puri	...	...	13,072	5,748	8,641	13,072	14,389	
Sundarbans	173	11	4,67,979	91,184	8,682	4,68,152	99,877	
Chittagong	1,160	450	96,556	13,572	13,911	97,716	27,933	
* Total ...	19,221	8,306	7,53,875	2,04,929	1,85,154	7,73,090	3,98,389	
Total for 1892-93 (15 months)	36,757	39,164	6,68,046	2,21,233	2,14,189	9,04,803	4,74,586	

APPENDIX.

APPENDIX A.

PARAGRAPH 33.

FOREST DEPARTMENT, BENGAL.

Abstract record of the growth of certain species of trees.

1	2	3	4	5	6	7	8	9	10	11	12
	SUNDARBANS FOREST DIVISION, PLOTS AND YEAR OF FIRST OBSERVATION									PURI FOREST DIVISION, PLOTS AND YEAR OF FIRST OBSERVATION.	
	Plot No. I, 1893-94.	Plot No. II, 1893-94.	Plot No. III, 1893-94.	Plot No. IV, 1893-94.	Plot No. I, 1894-95.					Joymangal 1893-94.	Haripur, 1894-95.
Species of tree.	Sundri				Pussur.	Amur.	Keora.	Goran.	Gengwa.	Sál.	
	Number of trees measured.									Acres and number of trees.	
	305	345	220	130	49	120	100	100	100	0·23—49	0·23—43
Average number of trees per acre.	Area not given.									213	187
Year	Average annual increase in girth per tree in inches.										
1892-93.	·44	·31	·37	·42	...	..	.	...	...	·23	...

APPENDIX B.

PARAGRAPH 45.

Statement showing the results of Fire Protection since its commencement up to date.

DIVISIONS.	1876-77	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	TOTAL FOR 18 YEARS.	ANNUAL AVERAGE.	COST.	
	Area burnt in acres.																				During 1893-94.	From 1876 to 30th June 1894.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Rs.	Rs.
Darjeeling ...	...	..	...	...	..	...	..	20	62	...	...	...	...	...	...	280	...	6	338	19	181	3,526
Tista ...	...	...	...	61	1,722	364	...	100	20	1,603	...	9	40	247	31	641	...	1,454	6,332	352	155	13,230
Kurseong ...	..	1,554	5,239	410	11	11,630	2,132	3,072	3,899	248	188	293	332	3,778	473	885	4	...	34,148	1,897	1,046	45,445
Jalpaiguri ...	80	5,960	33,500	1,200	15,140	5,420	30,000	3,160	15,556	5,483	19,511	12,602	11,663	7,191	17,078	41,857	160	5,401	230,842	12,825	1,482	23,667
Buxa ...	..	36,440	44,160	1,280	2,070	20,180	7,040	3,200	700	3,500	620	110	340	221	3,530	12,065	15	326	135,797	7,544	2,045	60,911
Direction ...	...	...	..	1,280	320	.	..	28,767	...	...	.	...	...	3,167	.	3,800	1,900	...	39,234	2,180	304	3,469
Pulamau ...	...	...	...	20,480	35,101	2,560	...	60	12,000	1,250	3,970	18,255	17,728	22,298	7,467	47,933	8,960	16,350	214,412	11,913	622	16,913
Singhbhum ...	..	...	...	..	...	20	...	...	75,000	80,220	55,642	38,650	273,600	...	4,577	137,997	8	402,538	1,068,252	59,347	1,535	12,823
Angul ...	...	...	...	...	...	...	...	...	71,467	72,586	26,580	40,018	3,700	40	14,890	6,820	...	14,590	250,691	13,927	1,300	13,560
Puri	...	...	...	...	...	...	...	...	...	220	3,396	1,480	397	1,814	...	4,162	5	48	11,522	640	957	14,013
Sundarbans ...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chittagong ..	...	..	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	795
Total areas burnt ...	80	43,894	82,899	24,731	54,364	40,174	39,172	38,319	178,694	165,110	109,907	111,417	307,820	38,756	48,046	256,420	11,052	440,713	1,991,568	110,643	9,627	2,07,749
Total area attempted to be protected.	66,207	122,728	189,653	447,836	460,396	620,960	426,800	530,071	806,209	829,253	839,043	1,001,357	1,133,933	778,577	936,632	1,264,113	1,209,238	1,197,441	...	714,480	...	...
Percentage burnt ...	0·12	36	44	6	12	6	9	7	22	20	15	11	27	5	5	20	1	37	...	15	...	...

APPENDIX C.

PARAGRAPH 46.

Note on the results of Savannah firing in the Jalpaiguri Division, by Mr. H. H. Haines, Officiating Deputy Conservator.

SAVANNAHS of greater or less extent occur in all the Jalpaiguri forests, and are of two kinds—

1. Those on high land, which usually burn early in the season.
2. Those in low land, which will often not burn until the hot weather.

The first appear to have their origin in the thinning out of the tree growth by repeated fires, and they frequently pass gradually on the one hand into stocked forest without any sharp line of separation, and on the other hand into the lowlying grass land.

It has been found that the firing of the first kind early in the season, and especially not long before the precipitation of dew, does comparatively little harm to the tree growth. The fall of the leaves of the trees of course takes place, but these leaves have already nearly completed their work, and would soon fall naturally, and the previous annual shoots are seldom entirely burnt back. Seedling sál in the thicker grass is usually burnt back to the root, but very strong shoots which have sprung from root stocks, whose shoots have been burnt for several previous years, will survive where the grass thins off into the stocked forest. Thus, although the advance cannot be as quick as in the cases where fires can be excluded altogether, I am of opinion that the forest will very gradually advance upon the savannah.

Experience has shown that fires cannot be excluded altogether for several years successively, as incendiary fires cannot be entirely stopped. Incendiary fires usually take place from March to May and at any time of the day. The grass at this time is very dry. The new shoots of the sál (which have now sprouted) with the new crop of leaves is entirely destroyed, and the growth thus almost stopped for the year, while such fires will often kill outright sál saplings of several years' growth. As incendiary fires, from their ready ignition, most commonly arise in savannahs, the advantage of departmental firing is obvious.

Where a savannah of the second type abuts on a sál forest, it cannot usually be fired without the adjoining forest also becoming burnt. This forest is thus thinned out gradually at the edges, and a repetition of the fire annually will gradually give rise to a savannah of the first type on the high land. This probably explains the origin of the highland savannahs. To fire low land savannahs departmentally therefore requires first that a pharé should be cut around them, and that they should be fired from their edges all around. The advantage of this departmental firing prevents the extension of the savannah, but such blanks can never be themselves filled up, another advantage being that wholesale forest fires are made more difficult to produce. The results of departmental firing of savannahs are thus satisfactory and such firing is, I believe, at present the only practicable way of reducing the terrible damage hitherto done to these forests by fire.

APPENDIX D.

FORM No. 61.

FOREST DEPARTMENT, BENGAL.

Summary of Revenue of the different Divisions during the Financial year 1893-94.

BUDGET HEADS.	Direction Division.	Darjeeling Division.	Tista Division.	Kurseong Division.	Jalpaiguri Division.	Buxa Division.	Palamau Division.	Singhbhum Division.	Sundarbans Division.	Chittagong Division.	Angul Division.	Puri Division.	TOTAL.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the Forests by Government Agency—													
a. Timber	...	10	...	6	...	433	...	37	...	6	...	...	491
b. Firewood and charcoal	...	14,512	...	...	...	...	...	...	3	...	...	...	14,514
c. Bamboos	...	...	...	4	...	...	...	...	...	...	...	...	4
d. Sandal-wood	...	...	...	...	...	...	...	...	...	...	...	...	...
e. Grass and other minor produce.	...	8	...	...	...	...	...	...	...	...	...	...	8
Total I ...	...	14,530	...	10	...	433	...	37	2	6	...	...	15,017
II.—Timber and other produce removed from the Forests by consumers or purchasers—	...	...	...	...	...	...	...	221	...	...	...	12,525	12,746
a. Timber	193	20,695	3,622	10,254	20,600	8,639	...	23,471	2,39,060	37,679	2,529	562	3,75,704
b. Firewood and charcoal	164	17,448	2,357	4,206	4,659	111	...	1,114	1,74,848	387	6	2,616	2,08,036
c. Bamboos	720	460	934	965	44	17	1,979	168	...	38,565	1,881	714	46,447
d. Grazing and fodder grass	9	4,631	1,501	667	2,209	504	...	2	...	...	...	2,801	12,324
e. Other minor produce ...	8,606	239	856	241	190	250	173	2,773	74,427	8,236	269	1,350	93,260
Total II ...	9,712	43,963	8,800	16,333	36,702	8,912	2,152	27,749	4,84,044	84,867	4,685	20,768	7,48,457
III.—Drift and waif wood and confiscated forest produce.	3,782	31	4,007	119	3,165	208	...	8	254	1,057	...	13	12,704
Total III ...	3,782	31	4,007	119	3,165	208	...	8	254	1,057	...	13	12,704
IV.—Revenue from Forests not managed by Government—													
a. Duty on foreign timber and other forest produce.	...	...	...	...	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forest.	...	...	...	...	...	...	...	...	...	...	...	...	...
Total IV ...	...	...	...	...	...	...	...	...	...	...	...	...	...
V.—Miscellaneous—													
a. Fines and forfeitures ...	100	18	...	...	...	...	...	...	...	...	...	...	118
b. Refunds	33	33	...	127	3	46	...	250	460	2,501	10	...	3,393
c. Other sources	19	1,942	836	1,817	315	537	166	589	6,463	8,830	46	372	21,922
Total V ...	142	1,993	836	1,944	318	573	166	839	6,963	11,331	56	372	25,433
TOTAL RECEIPTS ...	13,636	60,457	13,643	19,406	40,185	10,185	2,318	28,633	4,91,163	97,261	4,741	20,953	8,01,611

CALCUTTA,
The 14th June 1894.

I. C. BOSE,
Assistant Comptroller-General (Forests).

APPENDIX D—*continued.*

FORM No. 61.

FOREST DEPARTMENT, BENGAL.

Summary of Expenditure of the different Divisions during the Financial year 1893-94.

BUDGET HEADS.	Direction.	Darjeeling Division.	Tista Division.	Kurseong Division.	Jalpaiguri Division.	Buxa Division.	Palamau Division.	Singhbhum Division.	Sundarbans Division.	Chittagong Division.	Angul Division.	Puri Division.	TOTAL.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the Forests by Government Agency—													
a. Timber	...	...	...	8	...	1	...	...	...	...	...	...	9
b. Firewood and charcoal	...	6,955	...	...	...	...	...	...	...	...	...	...	6,955
c. Bamboos	...	...	...	6	...	...	...	...	...	...	...	...	6
d. Sandal-wood ...	...	...	...	...	...	...	...	...	...	...	...	...	...
e Grass and other minor produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total A. I ...	...	6,955	...	14	...	1	...	...	...	...	...	...	6,970
II.—Timber and other produce removed from the Forests by consumers or purchasers	38	1,207	385	524	274	456	111	1,174	49,419	663	216	458	54,924
Total A. II ...	38	1,207	385	524	274	456	111	1,174	49,419	663	216	458	54,924
III.—Drift and waif wood and confiscated forest produce	1,414	1	138	...	421	...	...	...	5	158	...	...	2,137
Total A. III ..	1,414	1	138	...	421	...	...	..	5	158	...	...	2,137
IV.—Revenue from Forests not managed by Government—													
a. Duty on foreign timber and other forest produce ...	...	...	...	...	...	...	...	...	...	...	...	...	...
b. Revenue from shared and private forests ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total A. IV ...	...	...	...	...	...	...	...	...	...	...	...	...	...
V.—Rent of leased Forests and payments to shareholders in Forests managed by Government	...	...	...	...	...	...	...	...	...	...	...	...	...
Total A. V ...	...	...	...	...	...	...	...	...	...	...	...	...	...
VI.—Live-stock, stores, tools and plant—													
a. Purchase of cattle	...	...	...	...	...	...	...	...	...	...	...	...	...
b. Feed and keep of cattle	..	...	5	536	1,330	1,387	98	1,541	...	...	...	...	4,897
c. Purchase of stores, tools and plant ..	37	534	454	57	123	7	91	534	4,841	133	44	50	6,905
Total A. VI ...	37	534	459	593	1,443	1,394	189	2,075	4,841	133	44	50	11,702

APPENDIX D—*concluded.*

FORM No. 61.

FOREST DEPARTMENT, BENGAL.

Summary of Expenditure of the different Divisions during the Financial year 1893-94.

BUDGET HEADS.	Direction.	Darjeeling Division.	Tista Division.	Kurseong Division.	Jalpaiguri Division.	Buxa Division.	Palamau Division.	Singhbhum Division.	Sundarbans Division.	Chittagong Division.	Angul Division.	Puri Division.	TOTAL.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
VII.—Communications and buildings—													
a. Roads and bridges ...	...	7,338	2,609	690	1,329	627	923	1,119	6	251	1,194	1,003	17,083
b. Buildings	192	1,688	1,911	1,799	3,124	1,911	944	3,074	13,173	1,144	560	1,491	31,006
c. Other works ...	2	10	46	38	108	412	16	184	642	19	...	109	1,577
Total A. VII ...	194	9,025	4,566	2,527	4,561	2,950	1,883	4,377	13,821	1,414	1,754	2,593	49,665
VIII.—Organization, improvement and extension of Forests—													
a. Demarcation ...	138	551	899	594	766	1,108	452	1,251	...	908	1,857	771	9,295
b. Cost of Settlements; compensation for land and rights ...	135	...	...	...	...	...	...	...	...	...	...	...	135
c. Surveys	...	8	...	...	21	...	...	...	65	...	...	...	94
d. Working Plans ...	...	149	...	...	151	...	...	...	211	...	...	...	511
e. Sowing and planting	2	1,478	...	11	...	...	22	...	...	799	...	27	2,339
f. Protection from fire	243	117	94	1,095	1,531	1,654	693	1,776	...	...	986	766	6,955
g. Other works ...	10	474	200	620	86	362	...	2	...	72	...	18	1,844
Total A. VIII ...	528	2,777	1,193	2,320	2,555	3,124	1,167	3,029	276	1,779	2,843	1,582	23,173
IX.—Miscellaneous—													
a. Refunds	50	...	...	...	...	...	...	...	64	...	...	...	114
b. Law charges ...	53	...	...	95	...	8	4	18	1	4	...	1	184
c. Other charges ...	6	253	301	34	24	13	16	466	177	70	48	99	1,507
Total A. IX ...	109	253	301	129	24	21	20	484	242	74	48	100	1,805
Total A.—Conservancy and Works	2,330	20,752	7,042	6,107	9,278	7,946	3,370	11,139	68,604	4,220	4,905	4,783	1,50,466

B.—Establishments.													
I.—Salaries—													
a. Conservators	19,342	461	...	...	...	...	...	...	...	...	...	...	19,803
b. Superior officers	5,227	16,374	6,803	4,705	8,024	8,105	2,450	17,850	11,808	5,112	2,698	3,600	92,756
c. Subordinate Forest and depôt establishments	946	6,308	3,981	5,712	3,943	3,524	1,924	6,063	17,759	11,022	2,470	2,725	66,317
d. Office establishments ...	5,787	1,496	997	981	867	924	619	1,563	2,211	2,160	759	892	19,261
e. Deputation and special allowances	1,963	426	134	67	...	...	...	...	724	611	...	...	3,925
f. Exchange compensation allowance	2,077	1,332	618	234	853	615	197	1,264	596	295	...	...	8,131
Total B. I ...	35,342	26,447	12,533	11,699	13,687	13,168	5,190	26,685	33,098	19,200	5,927	7,217	2,10,193
I.—Travelling allowances—													
a. Conservators	2,217	...	...	...	...	...	...	...	...	...	...	...	2,217
b. Superior officers	1,737	5,346	2,255	2,177	1,065	1,242	504	3,668	2,114	1,094	505	976	22,683
c. Subordinate Forest and depôt establishments	150	1,372	1,012	1,133	479	544	206	642	484	832	551	449	7,914
d. Office establishments ...	194	75	59	132	38	21	53	224	77	272	16	13	1,174
Total B. II ...	4,298	6,793	3,326	3,442	1,582	1,807	823	4,534	2,675	2,198	1,072	1,438	33,988
III.—Contingencies—													
a. Stationery	11	...	3	13	5	2	6	3	...	8	...	5	56
b. Carriage of tents and records	25	230	226	85	140	54	119	205	7	133	63	43	1,349
c. Rents, rates and taxes ...	6	447	...	50	163	3	11	59	358	6	...	...	1,103
d. Pay of police guards ...	...	...	...	...	...	...	...	...	...	...	...	...	...
e. Official postage	382	175	95	152	183	114	29	230	426	344	84	114	2,328
f. Sundries	517	199	144	171	667	71	89	260	988	1,154	105	195	4,560
Total B. III ...	941	1,051	468	471	1,158	244	254	757	1,779	1,644	272	357	9,396
Total B—Establishments ...	40,581	34,291	16,327	15,612	16,427	15,219	6,267	31,976	37,552	23,042	7,271	9,012	2,53,577
Grand Total of Expenditure	42,901	55,043	23,369	21,719	25,705	23,165	9,637	43,115	1,06,156	27,262	12,176	13,795	4,04,043

Calcutta,

The 14th June 1894.

I. C. Bose,

Assistant Comptroller-General (Forests).

APPENDIX E.

FORM No. 62.

FOREST DEPARTMENT, BENGAL.

Dr. *Account Current for the Financial year* 1893-94. *Cr.*

	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
To Cash balance	.....	98 14 10	By Expenditure as per Annual Summary Form No. 61	.....	4,40,042 15 2
„ VIII.—Assessed taxes—Income-tax—Deductions from salaries	.....	3,777 5 9	„ Deposits	.....	1,698 4 6
„ Revenue as per Annual Summary, Form No. 61	.....	8,01,611 8 5	„ Forest Cash Remittances—Local—		
„ Service Funds—			Remittances to Treasuries	7,88,968 8 0	
Civil Fund—Ordinary, Bengal	.....		Inter-divisional Transfers	1,381 10 9	
„ Additional, Bengal	.....				7,90,349 13 9
Military Fund—Bengal	.....		„ Advances recoverable	.....	2,05,857 0 4
„ „ Madras	.....		„ Suspense	.....	
„ „ Orphan Fund—Bengal	.....				
Uncovenanted Service Family Pension Fund—Bengal	3,105 10 0		„ Account current (other Governments)—		
General Family Pension Fund	102 0 0		Remittances to the Government of India	54 8 5	
Hindu Family Annuity Fund	.....	3,207 10 0	Remittances to the Government of North-Western Provinces and Oudh	3,789 4 1	
„ Deposits	.....	2,084 5 6	Ditto ditto Burmah	1,558 5 4	
„ Forest Cash Remittances—Local—					5,402 1 10
Forest cheques drawn	3,82,481 2 10		„ Inter-Departmental transfers—		
Inter-divisional Transfers	1,439 8 2		Public Works Department, Ordinary Branches	2,909 6 11	
		3,83,920 11 0	Military Department, Bengal	14,150 1 2	
„ Advances recoverable	.....	2,06,953 1 2	Civil Department—		
„ Suspense	.....		„ Miscellaneous	1,371 8 3	
„ Account current (other Governments)—			Telegraph Department	4 14 9	
Remittances from Government of India	3,686 0 11		Marine Department	79 12 9	
Ditto ditto North-Western Provinces and Oudh	2,914 8 0				18,515 11 10
		6,600 8 11	„ Cash balance	.....	213 14 6
„ Inter-departmental transfers—					
Public Works Department, Ordinary Branches	155 14 3				
Military Department, Bengal	4 9 3				
Marine Department	16,150 15 5				
Civil Department—					
Jail (Rs. A. P.)					
Mathematical Instrument Department (361 1 0)					
Survey of India Department (307 3 0)					
Miscellaneous (640 1 5)					
	1,308 5 5	17,625 12 4			
Total	.....	14,25,879 13 11	Total	.....	14,25,879 13 11

CALCUTTA,
The 14th June 1894.

I. C. BOSE,
Asst. Comptroller-General (Forests).

APPENDIX F.

FORM No. 63.

FOREST DEPARTMENT, BENGAL.

Revenue received and Outstandings on account of Revenue during the Financial year 1893-94.

DIVISION.	PARTICULARS.	Outstandings at commencement of year.	Value of sales and other revenue during year.	Total.	Amount realized during year.	Balance due to the department at end of year.	REMARKS.
1	2	3	4	5	6	7	8
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
rection	Timber and other produce, &c.	...	13,636 9 3	13,636 9 3	13,636 9 3	...	
rjeeling	Ditto ditto	1,275 13 9	59,210 15 2	60,486 12 11	60,486 12 11	...	
ta	Ditto ditto	0 0 4	13,643 1 0	13,643 1 4	13,643 1 4	...	
rseong	Ditto ditto	...	18,405 7 9	18,405 7 9	18,405 7 9	...	
lpaiguri	Ditto ditto	...	40,194 10 1	40,194 10 1	40,194 10 1	10 0 0	
ixa	Ditto ditto	...	10,184 15 8	10,184 15 8	10,184 15 8	...	
Palamau	Ditto ditto	...	2,334 2 3	2,334 2 3	2,318 12 11	15 5 4	
Singhbhum	Ditto ditto	...	28,688 3 5	28,688 3 5	28,632 14 7	55 4 10	
Sundarbans	Ditto ditto	...	4,91,163 1 7	4,91,163 1 7	4,91,163 1 7	...	
Chittagong	Ditto ditto	...	1,06,371 10 4	1,06,371 10 4	97,261 0 4 9,110 10 0*	...	* Rs. 9,110-10-0 deducted, being payment made as Maharaja of Hill Tippera's 4th gross share of Fenny revenue collections during 1892-93.
Angu	Ditto ditto	...	4,741 8 3	4,741 8 3	4,741 8 3	...	
Puri	Ditto ditto	...	20,952 9 9	20,952 9 9	20,952 9 9	...	
	Total	1,275 14 1	8,09,526 14 6	8,10,802 12 7	8,01,611 8 5 9,110 10 0*	80 10 2	
	Total for 1892-93	1,052 12 9	7,55,342 2 11	7,56,394 15 8	7,44,882 4 1 10,256 13 6	1,275 14 1	

APPENDIX G.

Form No. 64.

FOREST DEPARTMENT, BENGAL.

Outstandings and Liabilities on account of Contractors and Disbursers for the Financial year 1893-94.

Division.	Department Debtor.			Department Creditor.			Balance due.	
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).
1	2	3	4	5	6	7	8	9
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Direction	...	3,464 2 6	3,464 2 6	62 11 4	3,731 4 3	3,793 15 7	329 13 1	
Darjeeling	...	18,681 14 10	18,681 14 10	2,366 14 0	16,702 4 1	19,069 2 1	387 3 3	..
Tista	...	12,990 1 5	12,990 1 5	445 14 10	12,778 6 0	13,224 4 10	234 3 5	..
Kurseong	...	20,175 2 8	20,175 2 8	283 0 0	20,648 13 3	20,931 13 3	756 10 7	...
Jalpaiguri	...	14,134 9 10	14,134 9 10	671 12 7	13,791 13 1	14,463 9 8	328 15 10	...
Buxa	...	15,043 7 5	15,043 7 5	545 10 5	14,912 14 4	15,458 8 9	415 1 4	...
Palamau	...	6,672 15 3	6,672 15 3	285 7 3	6,517 11 11	6,803 3 2	130 3 11	...
Singhbhum	...	22,876 3 1	22,876 3 1	1,894 11 8	24,080 0 3	25,974 11 11	3,098 8 10	..
Sundarbans	...	55,655 12 11	55,655 12 11	2,444 10 4	55,783 1 5	58,227 11 9	2,571 14 10	...
Chittagong	...	21,347 14 3	21,347 14 3	772 10 6	20,942 3 10	21,714 13 4	366 15 1	...
Angul	...	7,856 4 1	7,856 4 1	607 6 8	7,637 14 10	8,245 5 6	389 1 5	...
Puri	...	8,054 8 11	8,054 8 11	256 2 5	8,130 10 1	8,396 12 6	332 3 7	...
Total ...	..	2,06,953 1 2	2,06,953 1 2	10,637 0 0	2,05,657 0 4	2,16,294 0 4	9,340 15 2	...

Calcutta,
The 14*th June* 1894.

I. C. Bose,
Asst. Comptroller-General (Forests).

APPENDIX H.

Form No. 65.

FOREST DEPARTMENT, BENGAL.

Financial results of the Financial year 1893-94.

Division.	Timber and other produce removed from the Forests by Government agency.		Other revenue.		Formation, protection, and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction	3,782	1,414	9,854	1,278	40,209	13,636	42,901	
Darjeeling	14,556	6,956	45,931	23,385	24,702	60,487	55,043	
Tista ..	...	...	13,643	8,018	15,351	13,043	23,369	
Kurseong . ..	58	14	18,348	10,029	11,086	18,406	21,719	
Jalpaiguri	...	.	40,185	11,934	13,771	40,185	25,705	
Buxa	432	1	9,753	10,258	12,906	10,185	23,165	
Palamau	...	...	2,318	4,300	5,337	2,318	9,637	
Singhbhum	45	...	28,588	20,871	22,244	28,633	43,115	
Sundarbans	256	5	4,90,907	96,516	9,635	4,91,163	1,06,156	
Chittagong .. .	1,063	518	90,199	12,873	13,871	97,261	27,262	
Angul	...	...	4,741	4,127	8,049	4,741	12,176	
Puri	...	..	20,953	5,401	8,394	20,953	13,795	
Total	20,192	8,908	7,81,419	2,08,980	1,86,155	8,01,611	4,04,043	
Total for 1892-93	30,486	31,013	7,14,396	1,77,287	1,73,308	7,44,882	3,81,608	

H. E. A. & others—Reg. No. 3519J—350 - 5-11-94.

REVENUE DEPARTMENT.

FORESTS.

CALCUTTA, THE 17TH DECEMBER 1894.

RESOLUTION—No. 5671.

READ—

The Progress Report of the Forest Administration in the Lower Provinces of Bengal for the year 1893-94.

Read again—

The Progress Report of the Forest Administration in the Lower Provinces of Bengal for the year 1892-93, and Government Resolution thereon.

General.

This report is submitted by Mr. A. E. Wild, who joined the circle as Conservator of Forests on the 8th April 1894, and is the first embracing the new forest year from the 1st July to the 30th June. It was due on the 1st October, and reached the hands of Government on the 9th November 1894. The delay is attributed partly to the short acquaintance of the Conservator with the details of the working of the Circle, and partly to the fact that it was necessary for purposes of comparison to reduce many of the figures given in last year's report, which covered a period of 15 months, from the 1st April 1892 to the 30th June 1893, to an average of 12 months, or to prepare actuals. The report is tinged by criticism of the past administration of the department, and without wishing to discourage reform or to imply that forest administration in Bengal is not capable of much improvement, the Lieutenant-Governor regrets that the attitude adopted by Mr. Wild should have led in some instances to invidious prominence being given to mistakes of a trivial character, occurring in the time of his predecessor. It is necessary also to say that the report is twice the length prescribed in section 266 of the Forest Department Code, and somewhat technical and bewildering in its minute sub-division. On the other hand it is evident that much pains have been bestowed on its preparation, and it bears witness to several places to the attention which Mr. Wild is devoting to the careful scrutiny of forest statistics and accounts and the correct preparation of prescribed returns.

Extension and Constitution of Forests.

2. The following statement shows the areas of the several classes of State Forests at the close of the year:—

	At commencement of the year.	Added.	Excluded.	At close of the year.	Percentage—	
					Of total forest area.	Of the area of the provinces.
1	2	3	4	5	6	7
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.		
Reserved	5,703	460	332	5,831	45	3·7
Protected	3,071	.....	12	3,059	24	1·9
Unclassed	4,034	1	1	4,034	31	2·6
Total ...	12,808	461	345	12,924	100	8·2

Reserved Forests.

3. The reservation of the Ramgarh-Sitakund Forests in the district of Chittagong added 133 square miles to the area of Reserved Forests, bringing the total to 5,831 square miles against 5,703 square miles at the beginning of the year, the net increase being reduced by recomputation to 128 square miles.

Protected and Unclassed State Forests.

4. The area of Protected Forests was reduced from 3,071 square miles at the commencement of the year to 3,059 square miles at its close, by the transfer of 12 square miles of land in the Sundarbans Forests to the Civil Department for purposes of cultivation. The areas of the Protected Forests in the districts of Chota Nagpur except Singhbhum are still unknown, and are not included in

the foregoing figures. Since the close of the year all waste lands, the property of Government in the Sonthal Parganas, have been declared "Protected Forests," and rules have been approved for their management, but the area thus brought under the Forest Act is again unknown. A small area of 363 acres in the Kurseong Division, acquired by the Public Works Department for the prevention of landslips at the Paglajhora on the Darjeeling-Himalayan Railway, and made over to the Forest Department for conservation, was added to the "Unclassed State of Forests," which cover 4,034 square miles, lying, with the exception of this addition, entirely in the Chittagong Hill Tracts.

Settlements.

5. In the present report the Conservator has eliminated from the total area shown in former reports as finally settled those areas not actually settled under the Forest Act, which it was customary to place in this category, because no detailed settlement of them under that Act was considered necessary. The area finally settled as shown in the present report is thus 2,827 square miles against 5,498 square miles in the previous report. This is possibly a more precise statement of the facts, but it must not be forgotten that much of the unsettled area has been Government Forest for so long that it is now unnecessary to apply to it the formal settlement procedure of the Forest Act. As regards the Forests of the Palamau Division, the Conservator appears to be mistaken in saying that they are not settled under the existing law. It was decided not to carry out a settlement under the Forest Act, because these forests are practically settled already under other laws. In the case of the Sunderbans Forests, which were reserved in 1879, there can be little question now of outstanding rights in them, and their settlement under the Act, which had been ordered, was therefore countermanded. In fine, if it is necessary to be precise, State Forests may for the present purpose be divided into three categories:—

1. Areas which do not require settlement under the Forest Act.
2. Areas finally settled under that Act.
3. Areas remaining to be settled.

It may be added, for the Conservator's future guidance, that an Annual Report is not the place in which to discuss such a question as whether a particular forest should or should not be brought under settlement.

6. Turning now to the actual work of the year, 667 square miles were in course of settlement at the beginning of the year, and 741 square miles were subsequently taken up. Out of the total of 1,408 square miles, 477 square miles were settled during the year including the Ramgarh-Sitakund Forest in Chittagong, all the unsettled Reserves of the Jalpaiguri Division, and most of those of the Buxa Division. The remainder includes other extensive forest areas in Chittagong aggregating 733 square miles, which it is proposed to reserve under the Act.

Survey.

7. No new survey work was done during the year by either the Survey Department or the Forest Survey Branch of the Government of India. Mr. Wild has made a praiseworthy attempt to prepare form No. 49, which illustrates the state of survey work in the circle, and the Lieutenant-Governor shares his hope that it may be found possible to prepare the statement with greater accuracy in future. It would appear that only 447 square miles of Reserved Forest in the Jalpaiguri and Buxa Forest Divisions, recently mapped by the Survey Department, have been specially surveyed with interior details, while 2,092 square miles of Reserved and 2,248 square miles of Protected Forest in the Sundarbans are included in ordinary District Surveys. Boundaries have been laid down by the Forest Survey Branch for 532 square miles of Reserved Forest in Singhbhum, and by local officers for 1,706 square miles of Reserved Forest and one square mile of Unclassed Forest. The total area which has not been surveyed in any way is 6,086 square miles, viz. 1,242 of Reserved, 811 of Protected, and 4,033 square miles of Unclassed Forest.

Working Plans.

8. Some progress was made in this branch of forest administration. As in the previous year, there are 4,378* square miles of forests under regulated management and 1,822 square miles which do not require regular plans. Plans were in course of preparation during the year for 225 square miles, and there remain 2,465 square

* Excluding 12 square miles transferred from the Sundarbans Forests to the Civil Department.

miles of Reserved and Protected Forests, and 4,034 square miles of Unclassed State Forests, for which Working Plans have still to be prepared.

Communications and buildings.

9. The expenditure incurred under this head during the year, as compared with the preceding 15 months, is shown in the table below extracted from the Conservator's Report :—

	Buildings.		Roads and Bridges.		Total.	
	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
1	2	3	4	5	6	7
	Rs.	Rs	Rs	Rs.	Rs	Rs.
New construction	8,778	21,757	10,049	5,998	18,827	27,755
Repairs	9,675	10,435	3,721	6,885	13,396	17,320
Unapportioned	168	.. ...	4,721	1,633	4,889	1,633
Total ...	18,621	32,192	18,491	14,516	37,112	46,708

The increased cost on buildings is chiefly due to the construction of the Forest office at Khulna, on which a sum of Rs. 9,080 was spent. Little progress was made in the construction of new roads, only 51 miles having been completed against 114 miles in the 15 months ending June 1893. This falling off is to be regretted, as the opening of communications is essential to the development of the forest revenue—a fact which is recognized in paragraph 72 of the report, which contains the following remarks :—"There is no doubt that although the extraction of forest produce is and may continue to be entirely in the hands of purchasers, still the want of communications is one of the great drawbacks the forests in Bengal have to contend with in the matter of disposal of the material they produce." The attention of the Conservator's is invited to the observations on this subject made in paragraph 9 of the Resolution recorded by Government last year.

Breaches of Forest Law.

10. The number of cases taken to Court was 126, against 175 in the previous 15 months (reducible to an average of 140 for 12 months), and convictions were obtained in 109 cases, or 86 per cent., against 88 per cent. The number of cases compounded under section 67 of the Indian Forest Act was 982 (involving 1,516 persons), and the amount of compensation received was Rs. 5,753, giving an average of Rs. 5-13-9 for each case and Rs. 3-12-9 for each person, against Rs. 1,179 (reducible to an average of 945 for 12 months) in the previous 15 months. There was a large increase in the number of such cases in the Tista Division, attributed to the practice of rewarding informers. A considerable decrease in the Sundarbans Division is ascribed to a better observance of the law.

Forest fires.

11. Protective measures against fire were adopted in 1,871 square miles, or 32 per cent. of the total area of Reserved Forests in the Circle, against 1,889 square miles specially protected in the preceding year.

The most important event of the year was the failure of these protective measures. The total area burnt amounted to 689 square miles, or 37 per cent. of the area protected, against 17 square miles, or one per cent. in the previous year. This unfortunate result, which the Conservator describes as abnormal and unprecedented, is not to be ascribed solely to want of success in the Singhbhum Division. Large areas were burnt in Palamau and Angul, and almost every Division contributes something to the general failure.

The following remarks are taken from the Conservator's report :—

"A little consideration of the above figures, aided with the statement given in Appendix B, showing the results of fire protection for the last 18 years, will show what little effect special measures have so far attained, and that from a practical point of view we are yet almost entirely at the mercy of the seasons. Moral persuasion and the power of the law seem, however, to have been but little used, and it is hoped, when the incalculable amount of damage such disastrous fires must do is fully realized by the district authorities, that with their help and in such degree as energy and determination is shown by them, coupled with a firm administration of the law, success in our endeavours will be ensured, and the amelioration of the evil attained. Fire-protection is essentially a measure in which the cordial

co-operation and aid of District Officers must be enlisted. Without the influence such officers can and ought to bring to bear on the surrounding ignorant population, the expenditure of lakhs of rupees on the part of the Forest Officers in special protective measures must remain as futile as previous records show it to have done. It is not sufficient to preserve a forest from fire for one year; to be of real use the protection must be permanent, and that we cannot relax our attention, it must be remembered that in a few hours the work, care, and expense of years may all be lost.

"The importance and magnitude of the matter are clearly evident when it is realized that during the last 18 years no less a sum than Rs. 2,07,749 has been spent on the safeguarding of 1,889 square miles of forest, with the result that in the eighteenth year no less than 689 square miles of this area has been burnt."

In regard to Singhbhum the Conservator observes:—

"In Singhbhum, where the whole area of the reserved forests, 732 square miles, was attempted to be protected, the disasters of the year were by far the heaviest; in spite of an expenditure of Rs. 1,535 or Rs. 2 per square mile on 869 miles of fire-paths, and the employment of 72 special watchers, no less than 86 per cent., or 629 square miles of the area taken in hand, was burnt as against 8 acres last year. There seems no doubt that this misfortune was due to the lawlessness of the surrounding population, which, seizing the opportunity of, it cannot but be thought, a lax establishment and of a most unusual dry season, and so a most favourable one to it, appears to have carried out its wilful designs without hindrance in a most thorough, but to us most ruinous, manner, for no more reason than that it should thereby obtain ample employment in the collecting of a more abundant crop of sabai grass. Not a single arrest has been made, and the damage sustained by Government has gone without the slightest punishment; nor does it seem that the aid of the district authorities was invoked or given, except in the distribution, at the beginning of the season, of notices which have been mere waste paper. The Divisional Officer, Mr. Chester, was, however, in very bad health, and not equal to his duties, though he had the help of two assistants."

The Lieutenant-Governor is surprised to learn that in Singhbhum no effectual attempt was made to check this enormous waste. Even if his aid was not invoked, the Deputy Commissioner should have brought offenders to justice if they could be identified, or failing that, he should have adopted other measures for the control of the population. His Honour observes that the Conservator has taken steps to keep himself informed of the occurrence of such cases and in view of the gravity of the circumstances disclosed, His Honour desires that until further orders a special report may be submitted to Government concerning every serious fire in a State Forest, as it occurs, showing how it originated and what measures were taken to punish the offenders. His Honour also approves of the Conservator's order that in respect of offences by fire compensation should not be accepted under section 67 of the Forest Act.

Gross yield and outturn of forest produce.

12. The outturn of timber from all sources exceeded 47 lakhs of cubic feet and that of fuel 133 lakhs of cubic feet, while 171 lakhs of bamboos, and minor produce other than bamboos to the value of Rs. 1,22,990 complete the tale of the produce of the Bengal forests during the year. Reducing the figures for the 15 months covered by the report for 1892-93 to an average for 12 months, the corresponding quantities for the previous year are for timber nearly 65 lakhs, for fuel 117½ lakhs, for bamboos 141½ lakhs, and for other minor produce Rs. 9[illegible],565. The foregoing figures exclude the estimate made of the consumption of forest produce by the Government raiyats in the Khurda Estate, which is a mere guess. Of the total outturn, departmental operations accounted for only 81,133 cubic feet of timber, 69,052 cubic feet of fuel, and 8,584 bamboos, while 46 lakhs of cubic feet of timber, 132 lakhs of cubic feet of fuel, and 171 lakhs of bamboos were removed by purchasers.

Mica.

13. Among the items included under the head "Minor produce other than bamboos" is mica, regarding which the Conservator writes:—

"The Hazaribagh mica mines, chiefly situated in the reserved and protected forests of that district, form the principal source of supply for the export trade. In 1890 the mines of the Hazaribagh district employed 11,163 persons during the working season, or an average of 1,819 persons daily, and gave an outturn of 4,020 maunds valued at Rs. 1,07,146. The majority of the mines are worked by Messrs. Christian and Company, under leases granted by the Deputy Commissioner of Hazaribagh, at an aggregate rental credited to the Forest Department of Rs. 9,692. They cover a total area of 22·57 acres, the total output for the year under report being estimated at 2,710 maunds, the revenue realized amounting to Rs. 8,029."

It may be observed that the so-called mica mines are not under the control of the Forest Department, and that mica would not ordinarily be regarded as

a forest product if the Government of India had not directed that it should be so classed.

Financial Results.

14. The receipts for the forest year amounted to Rs. 7,73,096 against an expenditure of Rs. 3,98,389, leaving a balance of Rs. 3,74,707, and compare with those of the preceding five years thus:—

Year (Financial).	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1888-89	6,76,907	3,75,471	3,01,436
1889-90	7,68,718	3,90,265	3,78,453
1890-91	7,27,392	4,14,005	3,13,387
1891-92	7,89,553	4,22,930	3,66,623
1892-93	7,44,882	3,81,608	3,63,274
1893-94	8,01,611	4,04,043	3,97,568

The revenue and surplus are the highest on record since the formation of the Department.

15. The following table shows the results in each division for the past two financial years:—

Divisions.	Receipts.		Charges.		Surplus.		Deficit.	
	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Darjeeling	68,384	60,487	50,942	55,043	17,442	5,444	.....	.....
Tista	10,005	13,643	23,632	25,369	.....	.....	3,727	9,726
Kurseong	19,706	18,406	21,039	21,719	.....	... ..	1,333	3,313
Jalpaiguri	29,189	40,185	29,649	25,705	.....	14,480	460	.....
Buxa	12,556	10,185	23,295	23,165	.....	.....	10,739	12,980
Direction	16,176	13,836	40,324	42,901	.....	.....	24,148	29,265
Palamau	1,134	2,318	10,808	9,637	.. ...	.....	9,674	7,319
Singhbhum	35,354	28,633	32,791	43,115	2,563	.....	.....	14,482
Angul	2,771	4,741	9,941	12,176	.....	.....	7,170	7,435
Puri	15,628	20,953	13,294	13,795	2,234	7,158	.....	.....
Sundarbans	4,35,368	4,91,163	89,987	1,06,156	3,45,381	3,85,007	.....	.....
Chittagong	88,798	97,261	35,906	27,262	52,892	69,999	.....	.....
Kusi Drift	13	.....	.....	.....	13	.....	.....	.....
Total ...	7,44,882	8,01,611	3,81,608	4,04,043	4,20,525	4,82,088	57,251	84,520
Net surplus ...	.....	.....	.....	.....	3,63,274	3,97,568	.....	.....

With reference to the preceding table, the Conservator observes that the Sunderbans and Chittagong Divisions have mainly contributed to the success of the year, while the remaining Divisions, with the exception of Darjeeling and Puri, which did little more than pay their way, were worked at a loss. It is apparent, therefore, that the most profitable Divisions were those in which least has been done by the Department to improve the resources of nature and in which those resources were the largest. The forests of Darjeeling, which have a considerable demand for fuel to supply, should prove more remunerative.

Miscellaneous.

16. The Circle was in charge of Mr. E. G. Chester from the 1st to the 13th July 1893, during the absence on privilege leave of Mr. E. P. Dansey. The latter held charge from the 14th July 1893 to the 22nd February 1894, when he proceeded on 8 months' furlough and was succeeded temporarily by Mr. Davis. Mr. Wild, the present Conservator, took charge on the 8th April 1894. The tours made by these officers covered a period of 158 days, during which seven Divisional Offices were inspected. In the previous 15 months the Conservator was on tour for 293 days.

The Lieutenant-Governor regrets that so many changes should have been necessary in the *personnel* of the officers in charge of the different Forest Divisions. Only four Divisions were under the same officer throughout the year, and in Chittagong no less than six officers held successive charge. As the Conservator observes, constant changes of this nature are detrimental to good work. But in a service numerically weak, the members of which are liable to be incapacitated by ill-health, it is difficult to avoid them. The Conservator writes:—

"Out of a Controlling Staff of 15 Deputy and Assistant Conservators and 7 Extra Assistant Conservators,—22 officers,—by no means excessive, even when all are effective, one Extra Assistant Conservatorship was unfilled, one Deputy Conservator was away for the whole year and one Assistant for eleven months, while six others were absent for periods of two to three months; one death during the yarha also again to be recorded."

17. In conclusion the Lieutenant-Governor desires to thank Mr. Wild for the evident zeal with which he has entered upon his duties as Conservator of this Circle.

ORDER.—Ordered that the Resolution be published in the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

C. E. BUCKLAND,

Secretary to the Government of Bengal.

No. 5672For.

COPY forwarded to the Conservator of Forests, Bengal, for information and guidance.

Nos. 5673-78For.

COPY forwarded to the Commissioner of the (1) Chittagong, (2) Rajshahi, (3) Presidency, (4) Bhagalpur, (5) Chota Nagpur, (6) Orissa Division for information.

By order of the Lieutenant-Governor of Bengal,

T. W. RICHARDSON,

Under-Secretary to the Govt. of Bengal.

CALCUTTA,
The 17th December 1894.

C. E. G.—Reg. No. 6634C—508—19-12-94.

No. $\frac{657}{271-2}$-F., dated Simla, the 18th June 1895. **File No. 271.**

From—DENZIL IBBETSON, ESQ., C.S., Officiating Secretary to the Government of India, Department of Revenue and Agriculture, **Serial No. 2.**

To—The Secretary to the Government of Bengal, Revenue (Forests) Department.

I AM directed to acknowledge the receipt of Mr. Richardson's letter No. 5691-Forests, dated the 18th December last, with which were forwarded the Report on Forest Administration in the Lower Provinces of Bengal for the year 1893-94, together with a copy of the orders thereon of His Honour the Lieutenant-Governor.

2. Sufficient attention appears to have been given to the question of forest settlements. The information, including the statistical return purporting to indicate progress made in settlement, furnished by the Conservator, is, however, misleading. As pointed out in His Honour the Lieutenant-Governor's orders, the application of the provisions of Chapter II of the Indian Forest Act is not always necessary in order that finality in forest settlement may be secured; and those areas which have been declared reserved under section 34 of the Act, and in respect of which the Government has decided that no further inquiry in terms of that section is required, should be shown in Form No. 47 as definitely settled forest estates. Changes which merely affect the distribution of the total areas of the division or circle over the administrative charges within it, and do not affect the total areas themselves, should be excluded from the totals of columns 7 and 8, even if shown opposite the charges to which they refer.

3. The progress made in improving communications and opening up export roads was not all that might have been expected from the clear orders issued by the Local Government on the subject in reviewing the report for the previous year, and the Government of India are glad to observe that the attention of the Conservator has again been directed to the necessity for facilitating the utilisation of forest produce.

4. The failure of measures to protect the forests from fire, which resulted in no less than 37 per cent. of the area under protection being burnt over, was the most regrettable feature in the year's administration. Such bad results have not been recorded for fifteen years; and it seems clear that the serious responsibilities attaching to officers charged with the protection of the forests were not properly realized in the case of Singbhum, where the Conservator was in ignorance of the occurrence of the disastrous fires, and the local officers appear to have failed to either check them or detect their origin, though no less than fifty different fires occurred. The Governor General in Council fully approves of the action taken by the Lieutenant-Governor in ordering for the present the submission of special reports concerning all serious fires, and His Excellency in Council trusts that a scrutiny of the causes of the fires, of the measures adopted to check and extinguish them, and of the punishments inflicted on incendiaries, will go far to prevent their recurrence. The Government of India agree that under no circumstances should offenders be allowed to compound for incendiarism.

5. The outturn of forest produce, which is summarised and compared with the previous year in the following statement, shows a falling off, even allowing that the figures for 1892-93 related to 15 months :—

Class of forests and agency by which produce was removed.	Timber.	Fuel.	Total wood.	Bamboos.	Minor produce.	Outturn per square mile of forests.		
						Timber and fuel.	Bamboos.	Minor produce.
	C. ft.	C. ft.	C. ft.	No.	Rs.	C. ft.	No.	Rs.
Reserved.								
Government ...	64,284	68,395	132,679	2,165	12	...	...	...
Purchasers ...	3,763,135	10,925,629	14,688,764	6,319,527	92,439	...	...	...
Free grants ...	13,276	13,377	26,653	800	889	...	...	...
TOTAL ...	3,840,695	11,007,401	14,848,096	6,322,492	93,340	2,546	1,084	16
Protected.								
Government ...	938	657	1,595	...	24	...	...	...
Purchasers ...	506,088	14,151,682	14,657,770	4,000,225	1,43,452	...	...	...
Free grants ...	4,638	2,500,000	2,504,638	2,500	5,691	...	...	...
TOTAL ...	511,664	16,652,339	17,164,003	4,002,725	1,49,167	5,611	1,308	49
Unclassed.								
Government ...	15,911	...	15,911	6,419	3	...	...	...
Purchasers ...	512,350	160,150	672,500	10,762,872	7,827	...	...	...
Free grants ...	...	...	...	7,000	3	...	...	...
TOTAL ...	528,261	160,150	688,411	10,776,291	7,833	171	2,671	2
GRAND TOTAL IN 1893-94 (12 mos.).	4,880,620	27,819,890	32,700,510	21,101,508	2,50,340	2,530	1,633	19
GRAND TOTAL IN 1892-93 (15 mos.).	8,249,528	29,548,916	37,798,444	21,681,600	2,67,799	2,951	1,693	21
DIFFERENCE IN 1893-94.	—3,368,908	—1,729,026	—5,097,934	—580,092	—17,459	—421	—60	—2

The chief fact brought out in the Conservator's report is that the reserved forests yielded 20 lakhs of cubic feet of timber less than in the previous year, but no explanation of this decreased outturn is given, or of the increase under fuel and minor produce. Mr. Wild has explained with much care how the statements were framed, and how far they have in the past contained or do still contain unreliable estimates ; but having arrived at reliable figures, he has failed to turn them to account for purposes of comparison. The possibility of largely increasing the income from Sabai grass, to which the Conservator alludes, should not be lost sight of.

6. The receipts and surplus for the financial year are the best on record, in consequence of increased revenue from fuel and minor produce. The

results for both the financial and forest years compare with those of 1892-93 as follows :—

Year.		Receipts.	Charges.	Surplus.	Proportion of Surplus to gross Revenue.
		Rs.	Rs.	Rs.	Per cent.
Forest year	1893-94	7,73,096	3,98,389	3,74,707	48
	1892-93	7,70,817	3,90,426	3,80,391	49
	Difference in 1893-94	+ 2,279	+ 7,963	— 5,684	— 1
Financial year	1893-94	8,01,611	4,04,043	3,97,568	49
	1892-93	7,44,882	3,81,609	3,63,273	49
	Increase in 1893-94	56,729	22,434	34,295	...
	Average for the five years ending 1892-93	7,41,490	3,98,593	3,42,897	46

7. In conclusion, I am to say that the Government of India, while concurring in the Lieutenant-Governor's commendation of the zeal with which Mr. Wild has entered upon his duties, agree that his report is not in all respects satisfactory.

The Governor General in Council recognises the thoroughness with which the Forest Branch of the Administration in Bengal is supervised, and His Excellency in Council desires me to express his thanks to Sir Charles Elliott for the completeness of the review of the past year's progress and of the orders issued.

G. C. Press, Simla.—No. 211 R. & A. D.—21-6-95.—321.